



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

**DOLLARIZATION IN EL SALVADOR AND ECUADOR:  
A MODEL WORTH FOLLOWING?**

by

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March 2016

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<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
<b>1. AGENCY USE ONLY</b> (Leave blank)		<b>2. REPORT DATE</b> March 2016		<b>3. REPORT TYPE AND DATES COVERED</b> Master's thesis
<b>4. TITLE AND SUBTITLE</b> DOLLARIZATION IN EL SALVADOR AND ECUADOR: A MODEL WORTH FOLLOWING?			<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Benjamin P. Moran				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number ____N/A____.				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (maximum 200 words)</b>  This thesis explores <i>de jure</i> dollarization in El Salvador and Ecuador. " <i>De jure</i> dollarization" is the wholesale transition from using a country's national currency to using another country's currency as its own legal tender. This thesis looks at the histories of El Salvador and Ecuador in order to set the stage for the conversion to the U.S. dollar. It then looks at select macroeconomic indicators in both countries to determine if dollarization has been a beneficial policy decision for each country. The data suggests that dollarization has been a prudent choice for El Salvador and Ecuador. While the macroeconomic success of both countries cannot be wholly attributed to dollarization, it has enabled both countries to have low, stable inflation rates and interest rates that have contributed to positive macroeconomic outcomes. Since this thesis approaches dollarization from a macroeconomic viewpoint, additional research should focus on how dollarization has affected various socioeconomic classes in these societies on a more microeconomic level.				
<b>14. SUBJECT TERMS</b> dollarization, El Salvador, Ecuador, monetary policy, fiscal policy			<b>15. NUMBER OF PAGES</b> 85	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18

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**DOLLARIZATION IN EL SALVADOR AND ECUADOR: A MODEL WORTH  
FOLLOWING?**

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Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES  
(WESTERN HEMISPHERE)**

from the

**NAVAL POSTGRADUATE SCHOOL  
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## ABSTRACT

This thesis explores *de jure* dollarization in El Salvador and Ecuador. “*De jure* dollarization” is the wholesale transition from using a country’s national currency to using another country’s currency as its own legal tender. This thesis looks at the histories of El Salvador and Ecuador in order to set the stage for the conversion to the U.S. dollar. It then looks at select macroeconomic indicators in both countries to determine if dollarization has been a beneficial policy decision for each country. The data suggests that dollarization has been a prudent choice for El Salvador and Ecuador. While the macroeconomic success of both countries cannot be wholly attributed to dollarization, it has enabled both countries to have low, stable inflation rates and interest rates that have contributed to positive macroeconomic outcomes. Since this thesis approaches dollarization from a macroeconomic viewpoint, additional research should focus on how dollarization has affected various socioeconomic classes in these societies on a more microeconomic level.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

ARENA	Nationalist Republican Alliance Party
GDP	gross domestic product
IMF	International Monetary Fund
OPEC	Organization of Petroleum Exporting Countries
PDC	Christian Democrat Party
WP	working paper

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## **ACKNOWLEDGMENTS**

I want to thank God for giving me the strength and wisdom to complete this thesis. In addition, I want to thank my beautiful wife for being by my side and helping me through this process; I would not have been able to do it without you. Finally, I want to thank my advisors for all of their patience with my many questions and for their critiques to make this thesis better than I ever could have done by myself.

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## I. INTRODUCTION

Exchange rate regimes come in many different forms. The United States' choice of regime is called a "floating system." Other popular systems are fixed-rate regimes, currency board systems, and systems where there is no sovereign currency; instead the country uses another country's currency as its own.<sup>1</sup> This last type of system is commonly referred to as "dollarization." While the name implies that the U.S. dollar is used as the replacement currency, it is not necessary to use the U.S. dollar for the policy to be termed "dollarization." Hence, a country could choose to use the British pound or the Japanese yen and it would still be considered dollarization. Additionally, there is a difference between a country officially using another country's currency as its own and a country where a second currency is widely used and accepted as if it were the national legal tender. The former is called *de jure* dollarization. The latter is termed *de facto* dollarization. This thesis uses the term "dollarization" to mean *de jure* dollarization—officially adopting the U.S. dollar as the sovereign currency.

This thesis explores some of the reasons why Ecuador and El Salvador chose to dollarize. The motivation behind a major decision such as getting rid of one's national legal tender could help in understanding why that policy choice was taken and what the desired outcome was. A better understanding of these two countries' motivations will help answer whether or not a similar policy would be beneficial for other countries in the region. Furthermore, a closer look at the economic factors involved in dollarization could help predict if such a path is prudent for other governments. By examining these two dollarization cases, this thesis can potentially add to the scholarship available on whether or not dollarization should be pursued. If it can be shown that dollarization has been beneficial for these two countries then a stronger case can be made to other similar countries to do likewise. If dollarization has not had the desired favorable outcomes that the policy makers had hoped for, then this too will benefit other countries in warning them to pursue other exchange rate regimes in lieu of dollarization.

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<sup>1</sup> Roberto Chang and Andres Velasco, "Financial Fragility and the Exchange Rate Regime," *Journal of Economic Theory* 92 (2000): 4.

Therefore, the major research question for this thesis is, given the macroeconomic performance of El Salvador and Ecuador since their decision to dollarize their national currencies, should other countries, especially in Latin America, adopt similar policies? Accordingly, this thesis explores the histories of El Salvador and Ecuador and possible reasons why they dollarized. Additionally, this thesis delves into the economic performance of both countries prior to dollarization and after implementation to try and ascertain the level of success in adopting the dollar as the national currency.

## **A. LITERATURE REVIEW**

As mentioned earlier, there are various schools of thought on the types of exchange-rate regimes that a particular country can implement. On one extreme a country could decide to use what is called a floating exchange rate. In a floating system, the value of a particular currency is determined by supply and demand in the world currency exchange market in relation to other currencies.<sup>2</sup> In other words, each day the value could change; that is why it is said to “float.” For example, today perhaps 1 U.S. dollar might be equal to 1 Euro; tomorrow 1 U.S. dollar might be worth 1.25 Euros. The other extreme is termed a fixed exchange rate, with the most rigid of these being dollarization. The basic idea with a fixed exchange rate is that a country will choose to “peg” its currency to another currency. The two most popular currencies to fix to are the U.S. dollar and the Euro.<sup>3</sup> Arguably, the most common reason to fix one currency to another is for trade.<sup>4</sup> A country that can fix its currency to another one can ensure that prices are stable for trade that occurs between it and its partners. A stable price simplifies trade between two countries and also can cause an increase in trade due to the stability in the transactions.<sup>5</sup> Normally, in a fixed exchange rate regime, a country keeps its sovereign currency and

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<sup>2</sup> Reem Heikal, “Currency Exchange: Floating Rate vs. Fixed Rate,” Investopedia, November 26, 2003, <http://www.investopedia.com/articles/03/020603.asp>.

<sup>3</sup> Kimberly Amadeo, “What Is a Peg to the Dollar?” About News, accessed August 31, 2015, <http://useconomy.about.com/od/glossary/g/dollar-peg.htm>.

<sup>4</sup> Andrew K. Rose, “One Money, One Market: The Effect of Common Currencies on Trade,” *Economic Policy* 15, no. 30 (2000), 9.

<sup>5</sup> Andrew Berg and Eduardo Borensztein, “The Pros and Cons of Full Dollarization,” IMF Working Paper WP/00/50, International Monetary Fund (2000): 14–15.

buys or sells the currency it is fixed to in order to keep its own currency at a predetermined exchange rate vis-à-vis the other.

Dollarization takes the fixed exchange rate one step further. Instead of a country maintaining its own currency, the country opts to completely replace its currency with another one, usually the dollar. So then, a country begins to use dollars, or whatever currency it has chosen, as its legal tender for all transactions. This change can be unilateral in nature, meaning the country changes its currency to the dollar without official approval from the United States.<sup>6</sup> The transition can also be negotiated through a treaty or a monetary union, such as the European Union did when it created the Euro.<sup>7</sup> This second method is more involved and certainly a lengthier process.

### **1. For Dollarization**

In reviewing the literature on dollarization, there are proponents for it, but there are also those that oppose it. The advocates cite various reasons why dollarization could be a positive step. One of these is the possibility of increasing trade between countries, as with a fixed exchange rate. Rose has even shown that trade partners that use the same currency trade up to three times as much as those that do not share a currency.<sup>8</sup> One of the reasons trading has the potential to increase between countries with the same currency is due to the reduced transaction costs.<sup>9</sup> Neither country has to convert its currency to another in order to make its trades, thereby simplifying the process and eliminating any transaction fees associated with converting one currency into another. When multiplied over thousands of transactions, it is easy to see how trade between two countries can benefit from using the same currency.

Related to the idea of costs associated with converting currency is the concept of exchange rate risk. Exchange rate risk is the risk assumed when someone using one

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<sup>6</sup> Roberto Chang, "Dollarization: A Scorecard," *Federal Reserve Bank of Atlanta Economic Review* (Third Quarter, 2000), 2.

<sup>7</sup> Ibid.

<sup>8</sup> Rose, "One Money, One Market," 9.

<sup>9</sup> Morris Goldstein, *Managed Floating Plus: The Great Currency Regime Debate* (Washington, DC: Institute for International Economics, 2002), 34–36.

currency wants to invest in something that uses a different currency. The risk in this transaction is due to the chance that the exchange rate between the two currencies will become less favorable for the investor, hence reducing the value of the investment. If the investor is using the same currency as the one in which the investment is denominated, however, then the exchange rate risk disappears. Investors then, theoretically, will be more willing to invest their money where they assume less risk.<sup>10</sup>

Still another currency conversion issue mentioned in the literature is currency mismatching.<sup>11</sup> Currency mismatching happens when a country has its assets and liabilities denominated in different currencies. If the exchange rate between those two currencies changes then the country's net worth can change significantly.<sup>12</sup> Clearly, if the country does not mismatch but instead has all of its assets and liabilities denominated in the same currency then there is no opportunity for the net worth to change. This particular advantage of dollarization should be considered since as Goldstein points out, "currency mismatching, via devaluation, is often regarded as at the heart of the large output losses observed during many currency crises."<sup>13</sup>

Similar to currency mismatching are currency outflows and speculative attacks. Currency outflows are simply when investors choose to move their money out of investments in a country for some reason. A common cause for this is when a country devalues its own currency. In these cases investors may shift investments elsewhere, causing a currency outflow. A speculative attack, on the other hand, is a devaluation of currency caused by outside investors hoping to profit from the falling value of the domestic currency. When a country uses a fixed exchange rate, but not dollarization, it can be susceptible to a speculative attack. Dollarization helps to prevent both issues since a country cannot devalue another's currency and speculators do not have a domestic currency to attack.<sup>14</sup>

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<sup>10</sup> Goldstein, *Managed Floating Plus*, 34–36.

<sup>11</sup> Ibid.

<sup>12</sup> Chang, "Dollarization: A Scorecard," 8.

<sup>13</sup> Goldstein, *Managed Floating Plus*, 35.

<sup>14</sup> Berg and Borensztein, "The Pros and Cons of Full Dollarization," 13–15.

Moreover, dollarization proponents argue that a country will benefit from faster growth rates and increased foreign investment. Faster growth is expected because of the coupled effect of low inflation risk and no domestic devaluation risk. These low risks, in turn, are thought to increase savings, lower interest rates, and increase foreign investment. Additional factors that may increase foreign investment are signaling effects of adopting a dollarization policy. By dollarizing, a government is signaling that it is serious about its commitment to low inflation, fiscal responsibility, and transparency. These types of commitments are encouraging to cautious investors.<sup>15</sup>

Two final advantages the literature discusses are reduced borrowing costs and budget discipline. Dollarization can result in reduced borrowing cost for a government for some of the reasons already discussed, such as transaction costs and currency risk. A bank issuing a loan to a dollarized country assumes less risk than a bank that lends to a country with its own domestic currency. Since there is less risk for the bank, the overall borrowing costs are reduced to the particular country. Finally, a government in a dollarized economy cannot simply print money on a whim. Accordingly, budget makers must be more disciplined on where money gets allocated. In theory, wasteful spending on inefficient programs or buying votes with the budget cannot be sustained when the ability to print money is gone. This in turn should lead to an overall strengthening of the economy since the government is forced to stick to a budget.<sup>16</sup>

## **2. Against Dollarization**

The most common criticism of dollarization in the literature is the loss of seigniorage the particular government would experience. Seigniorage simply is the profits a country generates from selling its currency minus the cost to produce it. Since the cost to produce currency is substantially lower than the face value of the currency, then the government stands to make a respectable profit from seigniorage. Switching to a dollarization regime would negate any further seigniorage profits. Not only would future profits be eliminated, but prior gains would be diminished as well. In order for a country

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<sup>15</sup> Berg and Borensztein, "The Pros and Cons of Full Dollarization," 13–15.

<sup>16</sup> Goldstein, *Managed Floating Plus*, 36.

to fully dollarize it has to buy back all of its own currency that is in circulation and replace it with the new currency. This mass buyback could potentially erase any previous seigniorage gains. Therefore, previous and future seigniorage benefits cannot be relied upon when dollarizing.<sup>17</sup>

Another common critique of dollarization in the literature is the loss of the lender of last resort function. “Lender of last resort” is when a central bank steps in to bail out a domestic bank that has fallen on hard times and does not have the necessary cash on hand to stay in business. This sort of scenario can happen if there is a run on the bank by its customers. A bank could find itself lacking the funds demanded by its patrons. If this happens, usually a central bank can step in and print money to loan to the bank in question. Under a dollarization scheme, however, the ability of the central bank is severely limited, namely since the central bank cannot print the currency in circulation. With proper forethought and planning, the central bank can respond to small crises of this kind. One way is through setting aside a liquid fund that could be used at a time like this. Another way is to secure a foreign line of credit that could be called upon in a time of crisis. Both of these options carry a cost with them. While this cost could be calculated, it is specific to each case and thus cannot be generalized. Therefore, the ability of the central bank to act as a lender of last resort could be severely hampered, or nonexistent, under a dollarization regime.<sup>18</sup>

Another common criticism of dollarization in the literature is the government’s lack of independent monetary policy. Monetary policy is important to a government because it allows a proactive approach to dealing with inflation and recessions.<sup>19</sup> Precisely how much the government should intervene in its economy is constantly debated. The fact remains that governments using their own currency have monetary policy and act in ways that they consider best at the time, given what is known about a situation. With dollarization, however, a particular country must essentially adopt, or at

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<sup>17</sup> Berg and Borensztein, “The Pros and Cons of Full Dollarization,” 15–18.

<sup>18</sup> Chang, “Dollarization: A Scorecard,” 5–6; Berg and Borensztein, “The Pros and Cons of Full Dollarization,” 21–23.

<sup>19</sup> Jim Eggert, *What Is Economics?* (Houston: Mayfield Publishing Company, 1987), 129–147.

least accept, the monetary policy of the country where the currency originates. The lack of independent monetary policy might be insignificant some of the time, but when something like an asymmetric shock, or some other factor, de-synchronizes the two countries, the dollarizing country may wish it had the option to exercise more control over its own monetary policy.<sup>20</sup>

The next point the literature agrees on is the permanency of dollarizing. Switching from one currency to another is not an overnight prospect. It takes time to convert an economy to another currency. Once switched over, there seems to be no easy way to revert back to the old system. Indeed, even if a country dollarized and then decided to go back to a sovereign currency, the new currency would undoubtedly be seen as weak compared to the dollar. Additionally, ensuring people give up dollars for the new currency is almost impossible. In such a case, de facto dollarization would most likely persist even though it is not the official policy. Moreover, no country has fully dollarized and subsequently reversed the policy.<sup>21</sup> Given the many challenges of implementing dollarization and the even more challenges to reverse dollarization, it is clear that dollarization is a long term plan.<sup>22</sup>

A final black mark for dollarization is more political than economic, namely the loss of identity or national pride due to the eradication of the national currency. National symbols can play a substantial part in uniting people under a common identity. Some symbols that come to mind are a country's flag, its national anthem, even its national museums. Another symbol that may not always be considered is the national currency. The U.S. currency, and most other nations' currencies, incorporates various symbols and historical figures on the paper or coins. This serves to remind citizens of their heritage and their unity and thus reinforces the national identity. Currency not only brings citizens together on a cognitive level, but it brings citizens together in a literal sense because it

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<sup>20</sup> Goldstein, *Managed Floating Plus*, 37; Barry Eichengreen, "When to Dollarize," *Journal of Money, Credit and Banking*, 34, no.1 (February 2002):17–24.

<sup>21</sup> Lodewyk Erasmus, Jules Leichter, and Jeta Menkulasi, "Dedollarization in Liberia: Lessons From Cross-country Experience," IMF Working Paper WP/09/37, International Monetary Fund (March 2009): 9. <https://www.imf.org/external/pubs/ft/wp/2009/wp0937.pdf>.

<sup>22</sup> Berg and Borensztein, "The Pros and Cons of Full Dollarization," 18.

allows the citizens to conduct transactions with other citizens throughout the country. Therefore, to do away with a national symbol like sovereign currency could serve to reduce national identity, loyalty to the government, and perhaps even cause elected officials to be removed from office due to strong opposition to dollarization.<sup>23</sup>

## **B. POTENTIAL EXPLANATIONS AND HYPOTHESES**

The first potential hypothesis to the major research question is, dollarization has been a beneficial policy decision for El Salvador and Ecuador. This hypothesis can be validated through studying the macroeconomic performance of the two countries. If a clear pattern can be shown that the economic situation after dollarization is better than before dollarization, then the hypothesis will be true. If true, then the implication could be that other Latin American countries should strongly consider adopting a similar policy. This would be especially true if other countries in Latin America looked economically similar to El Salvador and Ecuador prior to dollarization. In that case, an argument could be made for those other countries to study the policies and performance of El Salvador and Ecuador and try to emulate the positive outcomes.

A second and opposite hypothesis could be: dollarization has not been a beneficial policy decision for El Salvador and Ecuador. Again, a look at the macroeconomic performance of both countries will be needed to prove, or disprove, this hypothesis. If this hypothesis holds true then the logical recommendation would be to discourage other Latin American countries from dollarizing. With no derived benefit from implementing a drastic decision such as dollarization, then other countries would do well to study the example of those that have tried it and avoid the same mistakes.

It is possible that neither of the two hypotheses will be correct. When evaluating the performance of the two countries, perhaps one will prove to have performed well while the other has not. In this case a closer examination of why there is a difference will be needed. Some economists advocate that before dollarization is adopted, among other things, the banking system must be strengthened, the public debt must be lengthened, some labor market reforms need to take place, and more free trade agreements must be

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<sup>23</sup> Chang, "Dollarization: A Scorecard," 3.



negotiated.<sup>24</sup> In this sense, El Salvador was more prepared for the transition to the dollar than Ecuador.<sup>25</sup> This prior preparation could result in better economic performance, but it does not necessarily have to.

If there is a mixed result between El Salvador and Ecuador, then that would have an effect on policy recommendations. The recommendation is straightforward if both benefitted from or both were disadvantaged by dollarization. Having a mixed result, however, would require more specific recommendations. If a Latin American country more closely resembled the successful dollarized country, then the policy recommendation would be to dollarize. If a country looked more like the unsuccessful case, however, then the obvious recommendation would be to forego dollarization. Therefore, depending on what the research uncovers, the recommendations could be significantly different.

### **C. RESEARCH DESIGN**

The research design for this thesis is a comparative case study. There are only three Latin American countries that have dollarized their currencies: Panama, El Salvador, and Ecuador. This thesis will specifically analyze El Salvador and Ecuador. Both of these countries have dollarized fairly recently. Ecuador made the switch in 2000 and El Salvador began in 2001.<sup>26</sup> Panama, on the other hand, dollarized in 1904.<sup>27</sup> Given the large time disparity between when Panama dollarized and when El Salvador and Ecuador did, analyzing Panama in conjunction with the other two seems misguided. It is more appropriate to only compare Ecuador and El Salvador because the timing in their cases is more similar than in Panama's experience.

This thesis will rely on short term and long term economic factors in evaluating the results of dollarization. Specifically, it will examine inflation rates, interest rates, and

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<sup>24</sup> Eichengreen, "When to Dollarize," 1–2.

<sup>25</sup> Robert J. Barro, "The Dollar Club: Why Countries Are So Keen to Join," *Business Week* (December 11, 2000): 34.

<sup>26</sup> Myriam Quispe-Agnoli and Elena Whisler, "Official Dollarization and the Banking System in Ecuador and El Salvador," *Federal Reserve Bank of Atlanta Economic Review* (Third Quarter, 2006): 55.

<sup>27</sup> *Ibid.*, 56.

other factors before and after dollarization. In the short term, inflation rates and interest rates should both begin a downward trend and, over the long term, should begin to closely mirror the United States' numbers. It is possible that data indicating the results of dollarization over the short term and long term may not be sufficiently available. If data is indeed lacking, then the trends over the past 15 years will have to suffice as a predictor for the future.

Sources for this thesis will be derived from primary and secondary sources such as scholarly books, peer-reviewed journals, both government and non-government reports and articles, and news and magazine articles from the United States, Ecuador and El Salvador. Additionally, data will be taken from sources such as the International Monetary Fund, the World Trade Organization, the World Bank, and other official data and statistics sources.

## II. EL SALVADOR CASE STUDY

### A. HISTORY

El Salvador's history is characterized by unrest and competing factions. Almost immediately after the Spanish conquistadores arrived, they instituted an externally focused, commodity driven export market. This type of economy led to a two class system where rich elites owned the majority of the land and wielded much power while the lower class struggled to escape poverty. Post-colonial El Salvador saw little change in the economic model. After independence, elite rule over a poorer class continued as did the commodity driven export economic model. Elite rule took on a new form through most of the twentieth century. Instead of individual strong men coalescing to install civilian dictators, El Salvador began to experience military dictatorships. These regimes came to power with promises of widespread reforms that never materialized once they were in charge. Furthermore, corruption became commonplace in these regimes that promised to fix corruption. Lack of reforms and corruption resulted in opportunities for other military factions to stage coups on the basis that they would fix the problems rampant in the current regime. This cycle continued through much of the middle 1900s causing extensive turmoil in the country.<sup>28</sup>

Amid the aforementioned unrest, El Salvador performed surprisingly well economically through the 1960s and 1970s. GDP per capita rose by 2% annually from 1962 to 1978. Inflation remained at a manageable 1.5% per year from 1963 through 1972. The agricultural industry went through changes to make it more productive and competitive with regard to exports. There was also substantial growth in the industrial sector during this time. Then the OPEC oil-price crisis hit in the 1970s.<sup>29</sup>

When oil prices rose, the hidden problems in the Salvadoran economy began to manifest themselves. As in many other Latin American countries during the 1970s, inflation went up. Instead of the 1.5% it had been maintaining, El Salvador experienced

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<sup>28</sup> John A. Booth, Christine J. Wade, and Thomas W. Walker, *Understanding Central America: Global Forces, Rebellion, and Change*, 6th ed. (Boulder, CO: Westview Press, 2015), 56.

<sup>29</sup> *Ibid.*, 140.

12.8% annual inflation from 1973–1979. As a result, real wages and purchasing power both declined over the same time period. A rise in unemployment coincided with the rise in inflation. With the increased unemployment and a reduction in purchasing power, the lower class saw an increase in overall poverty. The upper class, however, remained relatively unscathed through this time period.<sup>30</sup>

By 1979, the economic situation in El Salvador began to affect all citizens. With the worldwide economic slowdown, large external debt, and unwillingness from international lenders to give El Salvador an endless supply of cash, the Salvadoran economy began to contract. Overall production began to decline which led to more worker layoffs. GDP and GDP per capita both declined. All of this economic turmoil caused a rise in unrest and political activity.<sup>31</sup>

While political opposition parties had existed since the 1960s, they never had much of an impact in the political arena. This lack of political power was largely a function of the repressive nature of the military regimes that labeled these opposition parties as communists and marginalized them in any way possible. Furthermore, the policies of the United States helped to diminish the role of these parties while aiding the ruling regimes since it wanted to thwart any hint of communism in the region. As the situation in El Salvador got markedly worse through the 1970s the political opposition became stronger and more organized. In response, the military regimes became more oppressive. Many citizens were arrested, imprisoned, and even killed for opposing the government. Various other human rights abuses were commonplace. By late 1979 and early 1980 the ruling military faction experienced extensive internal upheaval, and opposition and guerrilla groups united together to fight against the oppressive regime.<sup>32</sup>

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<sup>30</sup> Esther Wilson, “El Salvador’s Economy Sputters and U.S. Aid Policies Are the Culprit,” Backgrounder #534 on Trade, Economic Freedom, Heritage.org, published September 12, 1986, <http://www.heritage.org/research/reports/1986/09/el-salvadors-economy-sputters-and-us-aid-policies-are-the-culprit>.

<sup>31</sup> Ibid.

<sup>32</sup> Charles D. Brockett, *Political Movements and Violence in Central America* (New York: Cambridge University Press, 2005), 233–239.

El Salvador found itself in the middle of a civil war. Businessmen with major business interests supported the government because they benefited greatly from the system in place while the working class wanted change. The United States used its might to influence the events in El Salvador throughout the civil war. Almost immediately, the U.S. advocated a transition from military rule to a civilian led government. El Salvador complied and began a rocky transition to democratic rule. For the presidency, the U.S. backed a man named Jose Napoleon Duarte and his Christian Democratic Party (PDC). It considered him and his party centrist enough to stop alienating moderates and center-leftist from joining the opposition movement while being able to maintain support from those on the right. In reality neither turned out to be true, but due to massive support from the U.S., Duarte and the PDC remained in power through much of the 1980s. While the shaky, U.S. backed government was trying to find its way, the opposition's guerrilla forces were winning battles and gaining support. Had it not been for military training and support from the United States, the new civilian led government may have regressed into a military led regime that forcefully suppressed any opposition reminiscent of the recent past.<sup>33</sup>

Amid all of the steps taken toward democratic rule, there was still a significant amount of violence against the Salvadoran citizens as a result of the civil war. The widespread violence spurred waves of citizens to flee the country. A little over one sixth of the population of El Salvador left during the civil war. A large number of those that fled ended up settling in the United States. Among those that stayed, 75,000 lost their lives between 1979 and the end of the civil war in 1992. The civil war was truly a terrible time for El Salvador.<sup>34</sup>

Not only did many of its citizens flee during the civil war, but there was a lot of capital flight during the same time resulting in a 10% slowing of per capita production. This is not surprising. Multinational corporations do not like to operate in countries where there is a lot of risk to their investments. El Salvador was such a place during this

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<sup>33</sup> Tommie Sue Montgomery, *Revolution in El Salvador: From Civil Strife to Civil Peace* (Boulder: Westview Press, 1995), 51–54.

<sup>34</sup> “El Salvador: 12 Years of Civil War,” The Center for Justice and Accountability: Bringing Human Rights Abusers to Justice, accessed January 30, 2016, <http://www.cja.org/article.php?list=type&type=199>.

time. At the very least businesses were concerned that their employees would be prevented from coming to work or be killed in the daily violence. Unreliability of labor and the constant process of hiring and training new workers are costly for any business. Not only was there a concern for employees, but there was a concern for other investments as well. With a new fledgling democracy there was a real possibility that the government could collapse and revert back to an authoritarian regime. Given the past, there would be no guarantee that the property rights to their investments would be honored. Things like this are what discourage a business from continuing to operate in a place with massive unrest. Furthermore, this type of scenario prevents new investments into the country for the same reasons. Capital flight during the civil war contributed to overall poverty and economic depression for the Salvadoran people.<sup>35</sup>

## **B. DOLLARIZATION**

At the end of the 1980s, the U.S. backed President Duarte finally started to lose popular approval. His biggest supporters—the labor unions—began turning on him and corruption within his party caused divisions. This changing tide opened the door for the more conservative Nationalist Republican Alliance Party (ARENA) to increase its influence. The ARENA party had traditionally been made up of elites from the agricultural, financial, and manufacturing sectors. These elites held power in the country and were eager for economic reforms since the last decade had seen poor economic performance. In 1988, ARENA made gains in the legislature and gained control of the presidency in 1989. Alfredo “Freddy” Cristiani won the presidential election in 1989 and began to implement economic reforms. For the next 20 years ARENA held the presidency and pursued neoliberal economic policies. Arguably the most significant policy implemented during ARENA’s time leading the country was its decision to dollarize.<sup>36</sup>

Leading up to dollarization, ARENA began its own internal transition. The financial and import factions within ARENA began to gain more power and influence

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<sup>35</sup> Booth, Wade, and Walker, *Understanding Central America*, 150.

<sup>36</sup> *Ibid.*, 152–159.

than the agricultural faction. This change contributed to the decision to dollarize. Some, such as Towers and Borzutzky, have argued that ARENA led El Salvador to dollarize for political reasons, not just financial. The logic goes, ARENA leaned toward authoritarian tendencies and preferred ruling in a heavy-handed manner with policies that helped the powerful elites within its party with little regard for others. Dollarization, then, would help ensure stability for those businesses involved in finance or external trade because they would not have to worry about elected politicians tinkering with monetary policy such as currency devaluations. Therefore, regardless of which political party controlled the legislature or the presidency, a vast majority of real power and wealth would lie with ARENA and its supporters because they would benefit from dollarization the most. Additionally, the ability to reverse dollarization later would be practically impossible thus limiting future political parties' power.<sup>37</sup>

Another narrative for why El Salvador dollarized is that it was simply the next logical step to take. After the neoliberal reforms began in the 1990s, macroeconomic factors began to improve for El Salvador. Inflation began to fall to from 18.5% in 1993 to between 2–2.5% by 2000.<sup>38</sup> GDP growth from 1992 through 1995 averaged 6.85% annually and from 1992 to 2000 it averaged 4.73%.<sup>39</sup> In addition, the government was already pegging the colón to the dollar and trying to maintain an exchange rate of 8.75 colones for every dollar. Since the United States had been its biggest trading partner and would be for the foreseeable future, and given the substantial amount of remittances flowing into the country from those that had emigrated to the U.S., dollarization was the next logical step to take to help increase trade and spur more growth and investment in the country.

The first explanation seems to make more sense for why El Salvador dollarized. El Salvador has had a history of elite rulers that have pursued policies beneficial to

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<sup>37</sup> Marcia Towers and Silvia Borzutzky, "The Socioeconomic Implications of Dollarization in El Salvador," *Latin American Politics and Society* 46, no. 3 (2004): 34.

<sup>38</sup> "World Development Indicators: Inflation, Consumer Prices (Annual Percentage)," The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>.

<sup>39</sup> "World Development Indicators: GDP Growth (Annual Percentage)," The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>.

themselves and those around them with little regard for the lower class. Therefore, it is no stretch to think that the leadership within ARENA imposed dollarization on El Salvador in order to create a better business climate for themselves and their supporters. Furthermore, the speed at which dollarization occurred indicates that the policy was not debated or scrutinized by all political factions as one would expect such a momentous decision to be examined. The vote to dollarize happened in November of 2000 and it went into effect a mere 39 days later on January 1, 2001.<sup>40</sup>

Has dollarization been a beneficial policy decision for El Salvador? Have macroeconomic factors improved? Has El Salvador performed better economically than its neighbors? This thesis not only examines El Salvador in relation to its own past, but also in relation to how it has performed vis-à-vis its northern triangle neighbors—Guatemala and Honduras. A comparison between these three is appropriate because, among other things, all three are small in size and population; their most significant source of imports and destination for exports is the United States; they have a similar language and colonial heritage; and they have similar levels of manufacturing as a percentage of GDP.<sup>41</sup> A walk through the available data seems to suggest that dollarization has been a beneficial policy decision for El Salvador.

### **C. DATA ANALYSIS**

Arguably the most telling macroeconomic factor that should indicate the success, or lack thereof, of dollarization is the inflation rate. An expected outcome is a low and stable inflation rate post dollarization. Figure 1 shows inflation rates in El Salvador since the end of the civil war in 1992 through 2014.

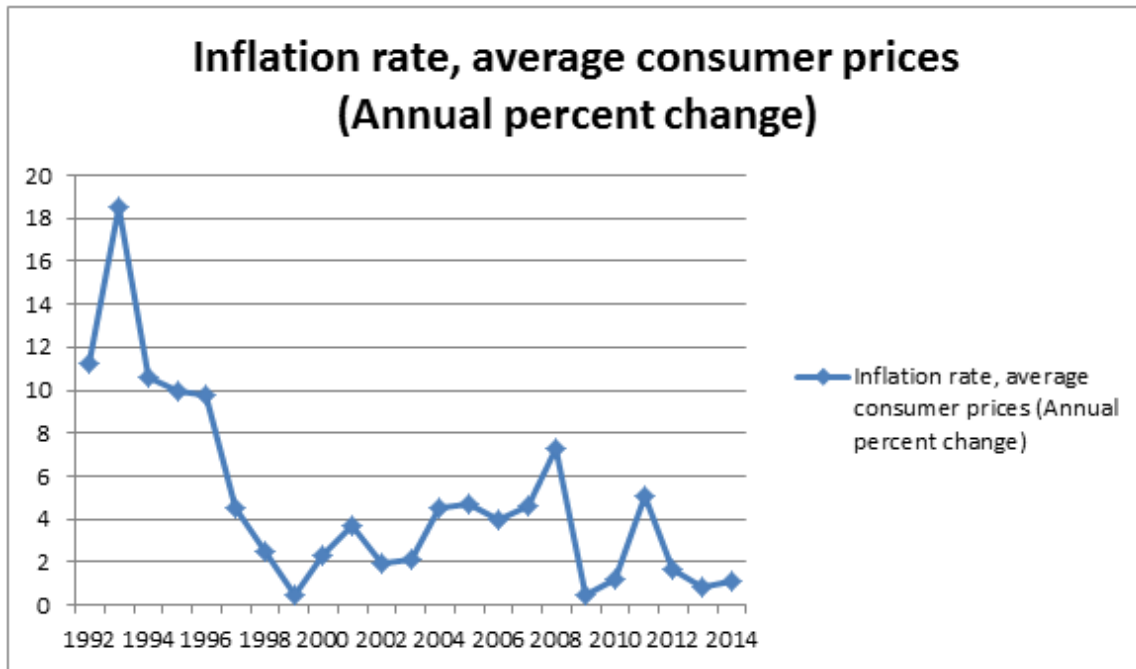
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<sup>40</sup> Towers and Borzutzky, “The Socioeconomic Implications of Dollarization in El Salvador,” 36.

<sup>41</sup> “Interactive Rankings,” Global Edge: Your Source for Global Business Knowledge, Michigan State University Broad College of Business, accessed March 9, 2016, <http://globaledge.msu.edu/tools-and-data/interactive-rankings>; World Trade Organization, “Trade Profiles 2015,” September 18, 2015, [https://www.wto.org/english/res\\_e/publications\\_e/trade\\_profiles15\\_e.htm](https://www.wto.org/english/res_e/publications_e/trade_profiles15_e.htm).



Figure 1. Inflation Rate 1992–2014

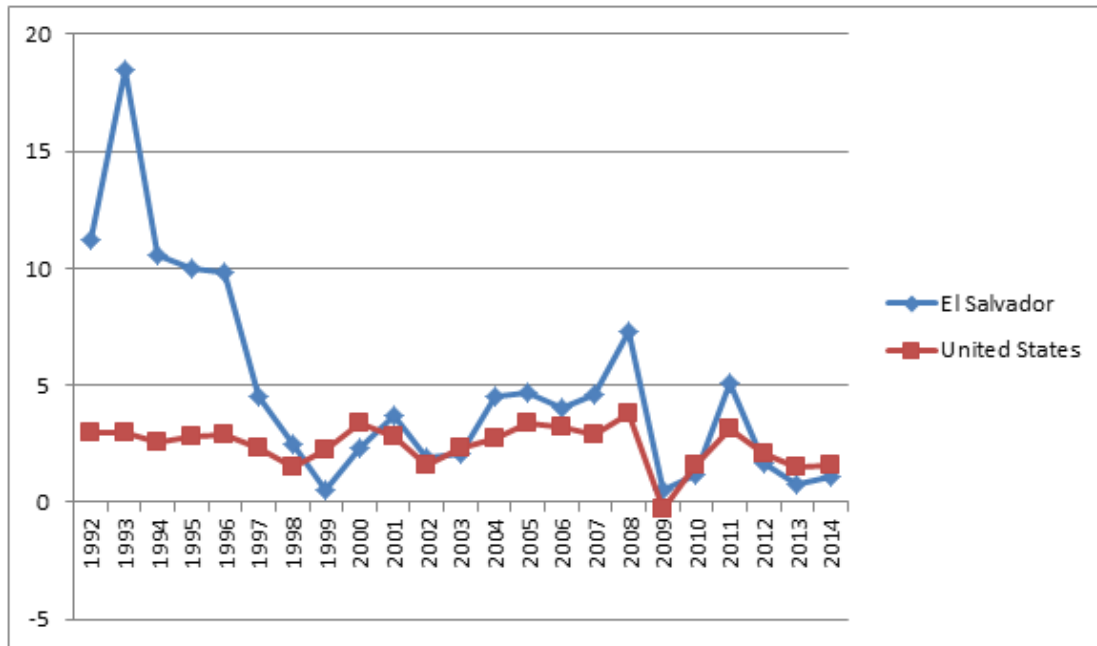


Adapted from “IMF Data Mapper,” International Monetary Fund, accessed October 9, 2015, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Interestingly, the inflation rate was trending downward from its high of 18.5% in 1993 to a low of 0.5% in 1999 just prior to dollarization. That decline in inflation raises the question of the validity of the argument that dollarization needed to be implemented to help reduce inflation. Clearly, the rates were already falling to a low level. While this point is undisputable, it is unknown if the rates would have stayed low. The counterfactual of what the inflation rate would have been if El Salvador maintained the colón is hard to predict. Perhaps the inflation rate would have remained low, but maybe it would have climbed back up to previous levels. Anyone purporting to know the answer is merely speculating. The actual outcome of dollarization on the inflation rate is shown in Figure 1. January 1, 2001 was the first official day of dollarization in El Salvador, and the average inflation rate from 2001 through 2014 was 3.1%. While there was a spike up to

7.3% in 2008, the rest of the time period indeed shows a fairly low and manageable inflation rate.<sup>42</sup>

Figure 2. Inflation Rate, 1992–2014



Adapted from “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed November 12, 2015, <http://data.worldbank.org/country/united-states>.

Figure 2 graphs El Salvador’s inflation rate against the inflation rate of the United States over the same time period. In the early to middle 1990s there was an obvious disparity between the inflation rates of the two countries. After dollarization the inflation rates take a strikingly similar path, which is expected. The average inflation for the United States from 2001–2014 was 2.3% compared to 3.1% for El Salvador during that same time. Furthermore, from 2012–2014 El Salvador had less annual inflation than the United States. The trend shown in Figure 2 and the absolute values from 2012–2014

<sup>42</sup> “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed November 12, 2015, <http://data.worldbank.org/country/united-states>.

support the argument that dollarization has been a beneficial policy choice for El Salvador since inflation has maintained a low and stable level.<sup>43</sup>

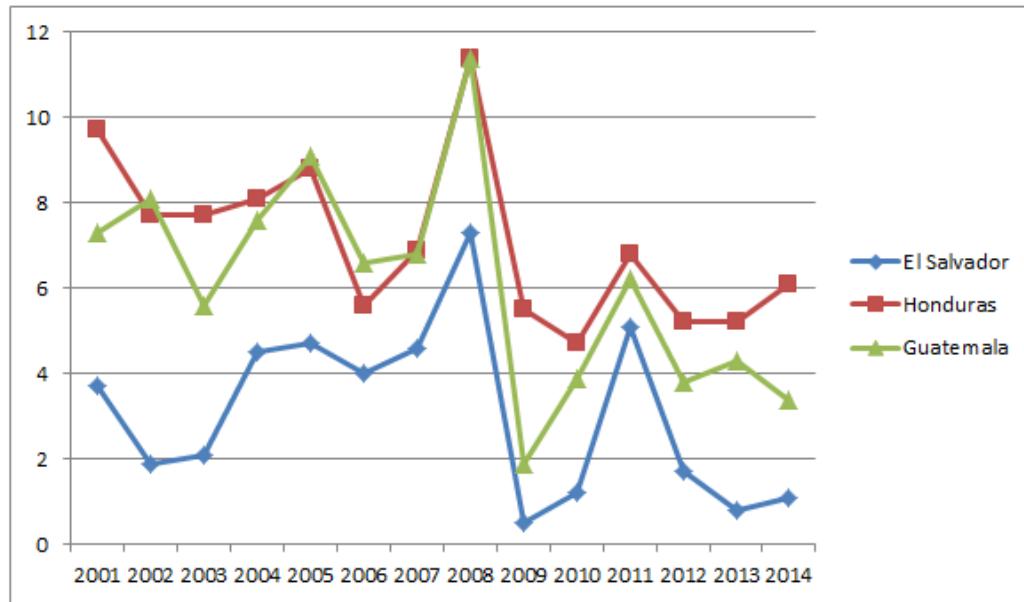
How has El Salvador performed compared to its neighbors in the northern triangle—Guatemala and Honduras? Figure 3 graphs the inflation rates of the northern triangle countries from post El Salvador’s dollarization in 2001 through 2014. It tells an interesting story. The northern triangle countries seem to follow the same general trends with regard to inflation. This could bolster the counterfactual argument that El Salvador would have performed similarly had it maintained its sovereign currency. Even if that were true, there is no way to know what the absolute value from year to year would have been. It could have maintained the same trend but been a higher value than Honduras and Guatemala, or it could have been lower. The data in Figure 3, however, shows that ever since dollarization El Salvador has maintained a lower inflation rate than both Honduras and Guatemala. Again, over this time period El Salvador averaged 3.1% inflation. Guatemala almost doubled that average at 6.1% and Honduras averaged 7.1% from 2001–2014. Certainly, the Figure 3 data supports the decision to dollarize.<sup>44</sup>

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<sup>43</sup> “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed November 12, 2015, <http://data.worldbank.org/country/united-states>.

<sup>44</sup> “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “IMF Data Mapper,” International Monetary Fund, accessed October 9, 2015, <http://www.imf.org/external/datamapper/index.php?db=FM>.

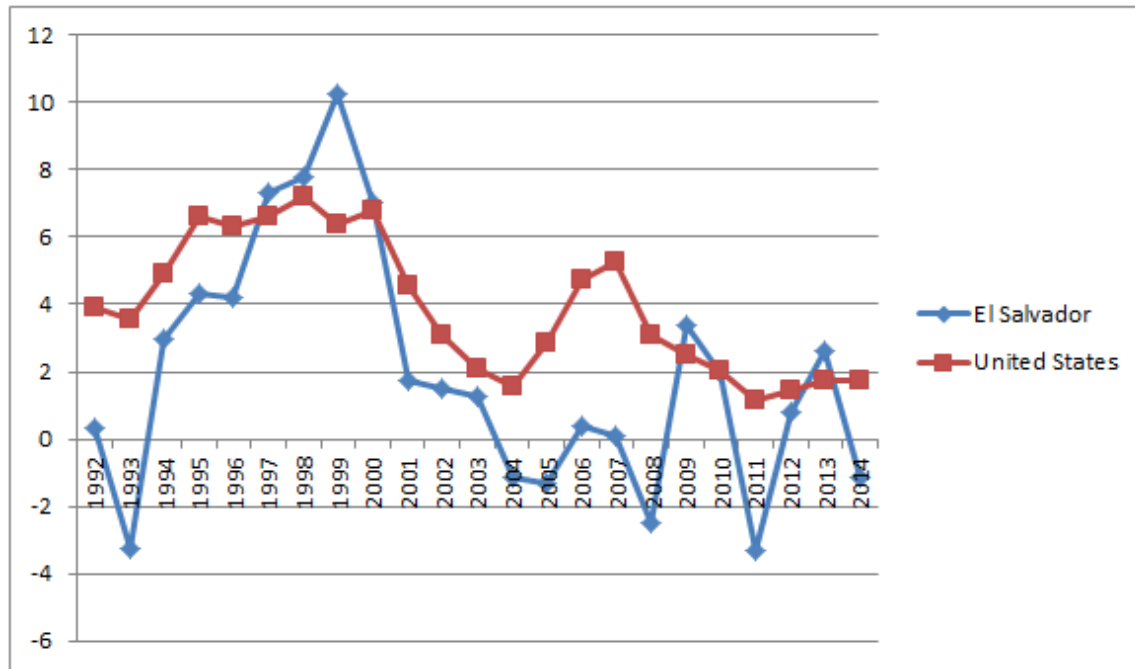
Figure 3. Inflation Rate, 2001–2014



Adapted from “World Development Indicators: Inflation, Consumer Prices (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “IMF Data Mapper,” International Monetary Fund, accessed October 9, 2015, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Inflation is not the only macroeconomic factor to consider. Interest rates should also be a telltale sign of dollarization success. A dollarizing country should expect to have interest rates fall and then mirror the U.S. interest rates. Figure 4 shows the interest rates of El Salvador and the United States from 1992 through 2014.

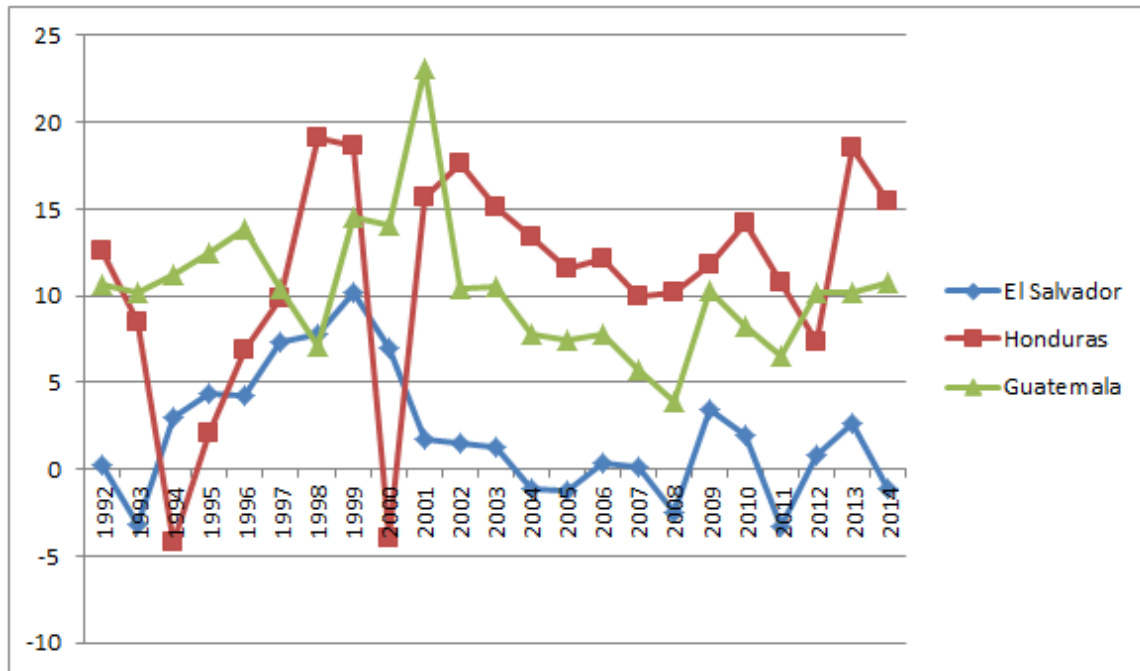
Figure 4. Interest Rates, 1992–2014



Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed November 12, 2015, <http://data.worldbank.org/country/united-states>.

Contrary to the inflation rates, El Salvador’s interest rates in Figure 4 do not mirror the United States’ rates. After dollarization in 2001, the expected initial decline in interest rates can be seen, but they do not closely follow the U.S. rates past 2003. This could be because dollarization did not have the desired effect on interest rates. If this is true then the conclusion is that dollarization was not a beneficial policy choice to influence interest rates, and therefore not beneficial for El Salvador. Comparing El Salvador’s interest rates against the U.S. rates is only one side of the comparison though. Looking at how the Salvadoran interest rates performed against Honduras and Guatemala is another factor to consider.

Figure 5. Interest Rates, 1992–2014



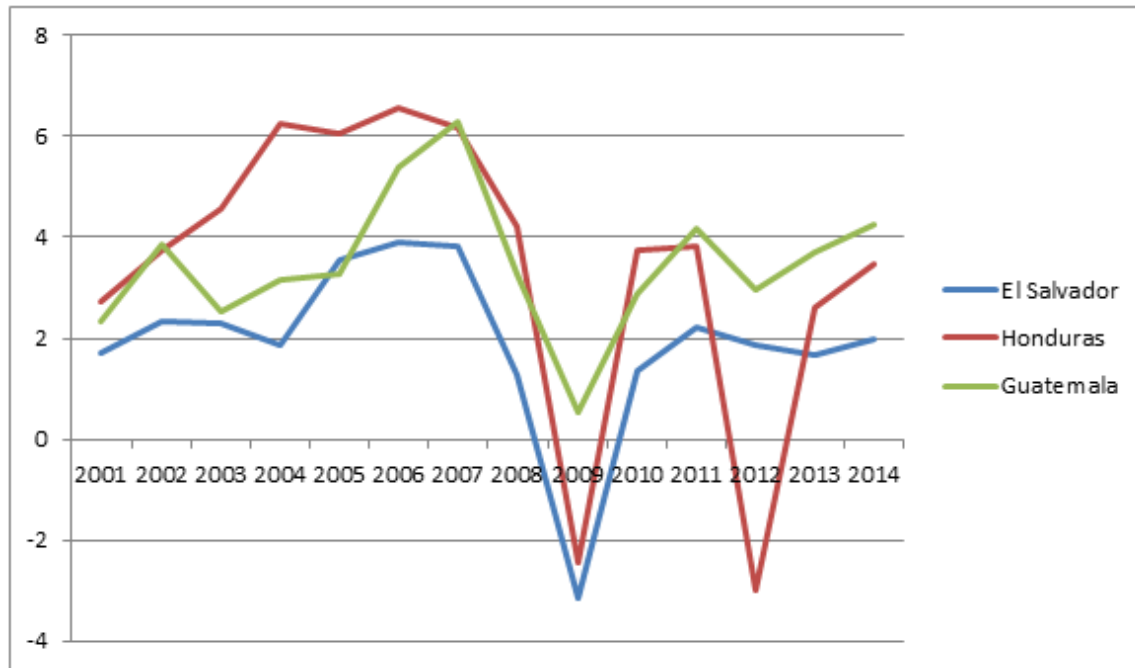
Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/guatemala>.

Figure 5 graphs the interest rates of the northern triangle countries from 1992–2014. This dataset shows that after 2001, El Salvador maintained a lower interest rate than Honduras and Guatemala. So while Figure 4 did not help the dollarization argument, Figure 5 shows another way that El Salvador out-performed its neighbors post dollarization. As a result, Figure 5 builds up the dollarization position since El Salvador was able to maintain a more favorable business climate with lower interest rates vis-à-vis its northern triangle neighbors.

Another simple comparison that can be made is annual GDP growth. Figure 6 shows annual GDP growth for the northern triangle. Clearly from this graph El Salvador has consistently grown at a slower rate than its neighbors. The average growth for the time period shown is 1.9% for El Salvador and approximately 3.5% for Honduras and

Guatemala.<sup>45</sup> Again, dollarization is not the only consideration when accounting for GDP growth, but it is interesting that El Salvador has not been able to outperform either Honduras or Guatemala in terms of growth.

Figure 6. GDP Growth (Annual Percentage)



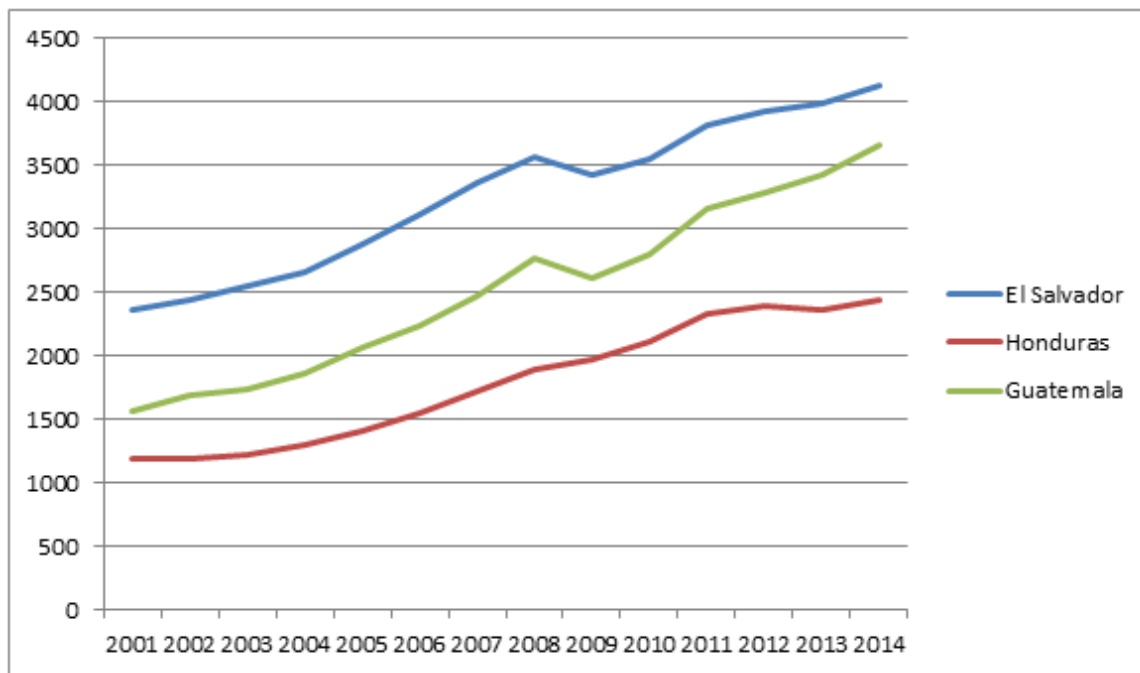
Adapted from “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

GDP per capita is the opposite however. Figure 7 graphs GDP per capita from 2001–2014. From this chart it is clear that El Salvador has outperformed its neighbors with regard to GDP per capita every year of dollarization. Over the time period, El

<sup>45</sup> “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: GDP Growth (Annual Percentage),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

Salvador has averaged per capita GDP of \$3,269.<sup>46</sup> During the same time Guatemala averaged \$2,527 and Honduras averaged \$1,792.<sup>47</sup> So, even though El Salvador grew less than the other two as a percentage of GDP, their GDP per capita amount was more. The good news for the northern triangle, however, is that all of them have seen an increase in GDP per capita since 2001.

Figure 7. GDP Per Capita (Current U.S.\$)



Adapted from “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

While GDP per capita is a good metric to try to determine how well off the people in a particular country are, an even more telling metric is the poverty headcount ratio.

<sup>46</sup> “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>.

<sup>47</sup> “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.



This statistic tries to accurately determine what percentage of the population lives in poverty. It gets broken down into two different levels. The first is the percentage of the population that lives on less than \$3.10 per day and the second is the percentage that lives on less than \$1.90 per day. Figures 8 and 9 graph these percentages for the northern triangle countries. Guatemala only reported data for the early 2000s so their depiction is rather truncated.

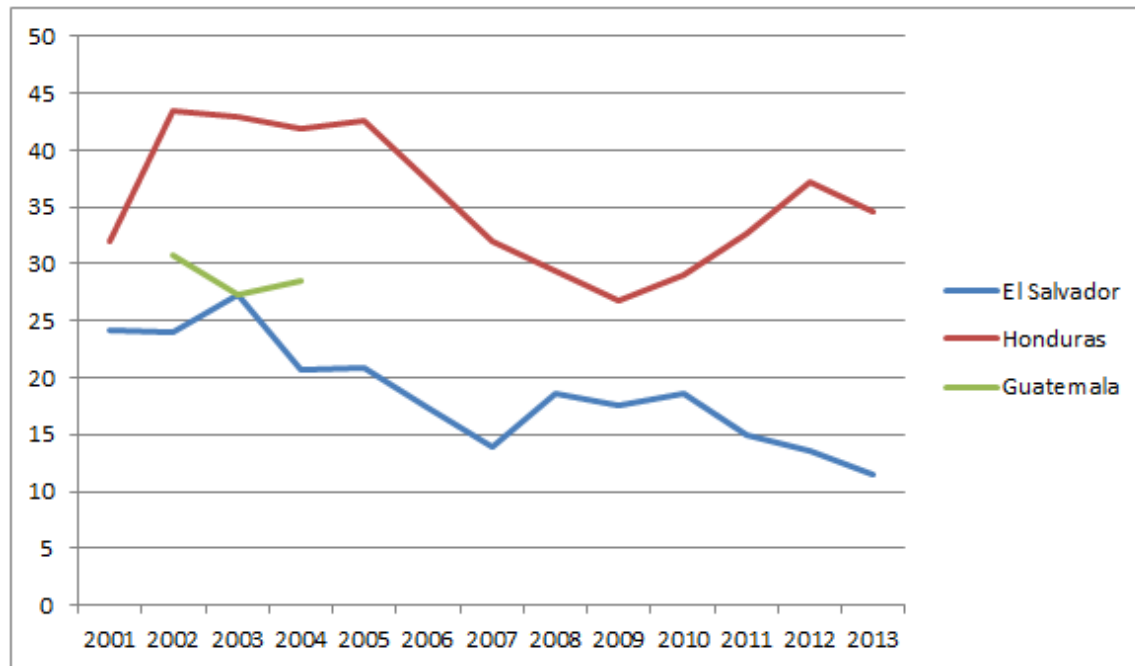
As evidenced in the charts, El Salvador has a lower percentage of its population in poverty than the other two countries. For 2013, the last year reported, El Salvador had 11.53% of its population below \$3.10 per day while Honduras had 34.55% below \$3.10.<sup>48</sup> That means that Honduras had three times as many people, as a percentage of the population, in poverty than El Salvador. In real numbers, El Salvador had just over 703,000 people below \$3.10 compared to Honduras' 2.7 million people under the same poverty mark—almost four times as many as El Salvador.<sup>49</sup>

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<sup>48</sup> “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>.

<sup>49</sup> Ibid.

Figure 8. Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population)



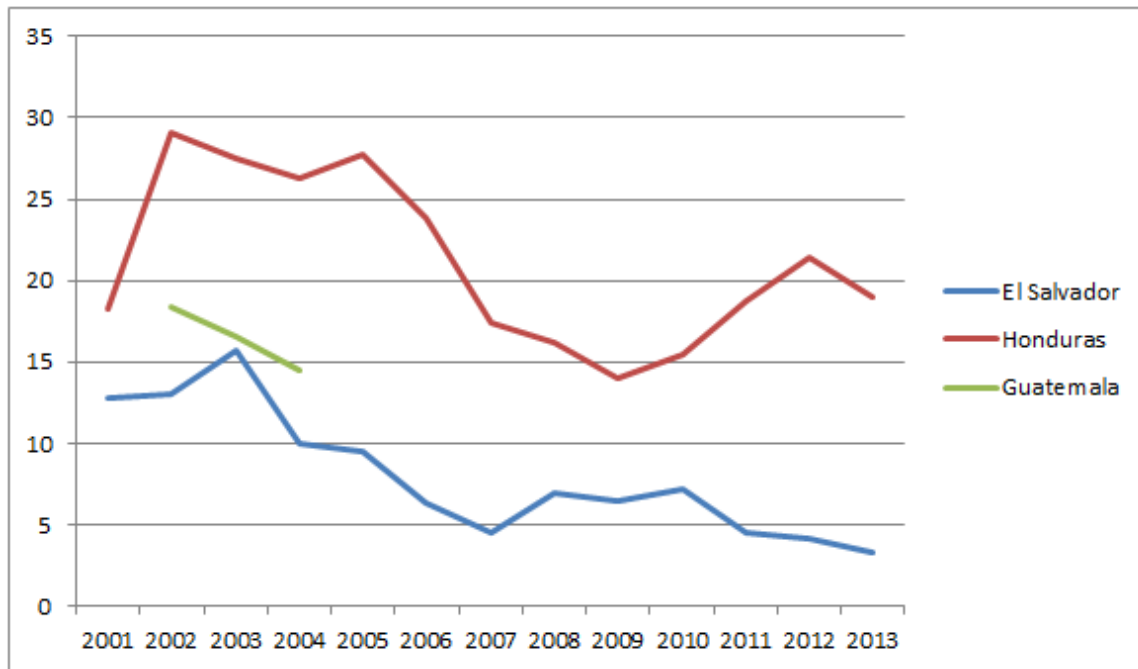
Adapted from “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population ),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population ),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

The numbers for the \$1.90 per day level are better for both countries, but the comparison between the two is still stark. In 2013, El Salvador had only 3.25% of its population under the \$1.90 mark. Honduras, on the other hand, reported 18.93%.<sup>50</sup> In real numbers that equates to almost 1.5 million people in Honduras under \$1.90 compared to just under 200,000 in El Salvador. This means that Honduras had more than double the

<sup>50</sup> “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>.

amount of people under the \$1.90 poverty line than El Salvador had under the \$3.10 line.<sup>51</sup>

Figure 9. Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population)



Adapted from “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

At no time since dollarization, according to the charted World Bank data, has El Salvador been worse off than its neighbors. Furthermore, the overall trend since dollarization has been a reduction in poverty in El Salvador, while in Honduras there was a reduction with a subsequent increase since 2009. Has dollarization been the sole cause

<sup>51</sup> “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>.

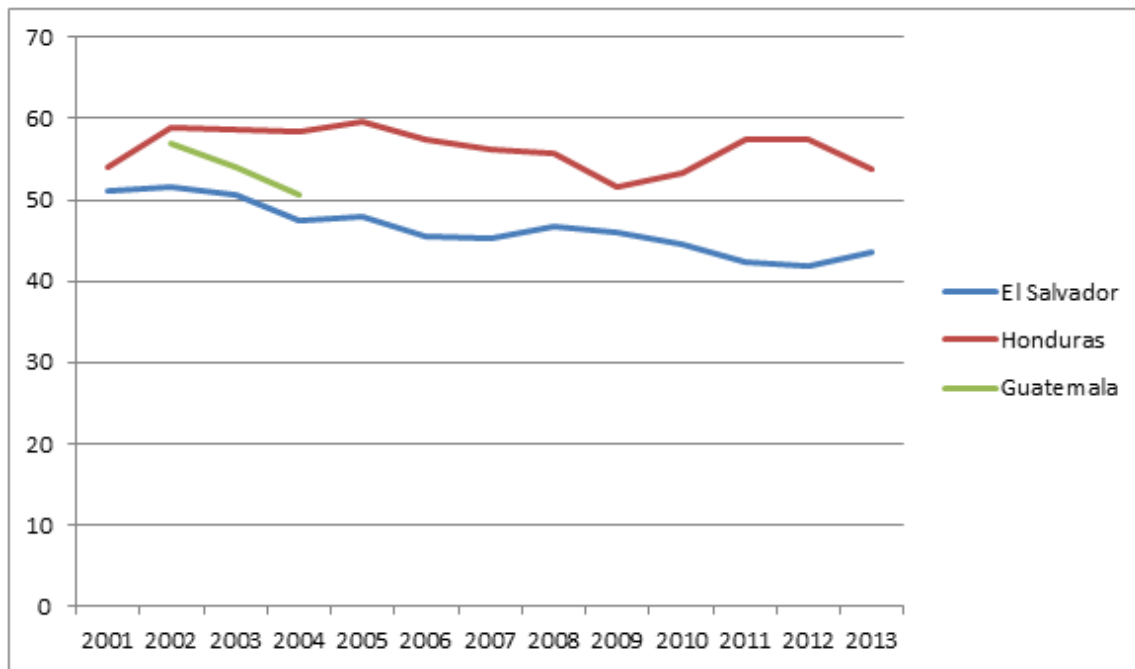
for a decrease in Salvadorans poverty? It is unlikely that dollarization is the only cause. More likely it is due to a full range of policies, including dollarization, that have been pursued that have helped reduce the number of Salvadorans living in poverty.

The final chart in this section graphs the Gini index as estimated by the World Bank. This estimate attempts to capture the level of economic inequality within a given country. A lower number equates to more equality while a higher number indicates more inequality. Similar to the poverty charts, data for Guatemala was only available for the early 2000s. Figure 10 shows results similar to the poverty charts in that El Salvador has been more economically equal every year since dollarization and it has never been less equal than the other two countries over the same time period. The 2013 numbers were 43.51 for El Salvador while Honduras had 53.67.<sup>52</sup> An honest analysis cannot contribute El Salvador's success vis-à-vis its neighbors completely to dollarization. It could be said, however, that dollarization has helped to create a more equitable economic situation in El Salvador.

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<sup>52</sup> "World Development Indicators: Gini Index (World Bank Estimate)," The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; "World Development Indicators: Gini Index (World Bank Estimate)," The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>.

Figure 10. Gini Index (World Bank Estimate), Northern Triangle Countries



Adapted from “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed October 9, 2015, <http://data.worldbank.org/country/el-salvador>; “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/honduras>; “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed December 16, 2015, <http://data.worldbank.org/country/guatemala>.

#### D. CONCLUSION AND RECOMMENDATIONS

Given the discussion of the data, what can be determined about El Salvador’s decision to dollarize? Based on the previous evidence, a proper interpretation is that dollarization has been an overall beneficial policy change for El Salvador. The only metric analyzed where El Salvador performed worse than its neighbors was in percentage growth of GDP. El Salvador still experienced GDP growth, just not as much as its neighbors. Inflation and interest rates—the two most telling indicators—both showed a reduction and stabilization after dollarization. Furthermore, El Salvador has shown a consistent downward trend in levels of poverty and inequality.

Further research should be done to determine the extent of poverty reduction that can be attributed to dollarization. Any issue such as poverty will not have one cause or

one solution, therefore, it is necessary to determine what factors are contributing to its reduction in El Salvador so that the downward trend can continue. In sum, from a macroeconomic view, dollarization has been a beneficial policy choice for El Salvador. Since this is the case, should Guatemala and Honduras follow the same path? Based on the data above, the answer is probably “no.” While their inflation rates and interest rates are above those of El Salvador’s, they are not so dramatically above, nor unstable, to suggest the need to dollarize. If inflation and interest rates began to climb excessively coupled with other negative macroeconomic factors then a serious discussion on dollarization would be wise. Right now that does not seem to be necessary.

### III. ECUADOR CASE STUDY

#### A. HISTORY

Ecuador's history shares some similarities to the Salvadoran experience, but at the same time it has its own unique story. Like El Salvador, Ecuador was colonized by the Spanish which largely resulted in a two class system—the rich European elite and the poor indigenous people.<sup>53</sup> Additionally, Ecuador's economy has traditionally centered on an externally focused commodity market.<sup>54</sup> Furthermore, throughout its history Ecuador has had periods of military rule just like El Salvador.<sup>55</sup> A distinct difference though, is that while El Salvador experienced substantial violence under the military regime during their civil war Ecuador did not. In fact, Ecuador did not even go through a civil war on its journey to democracy. The lack of violence in Ecuador's case certainly sets it apart from many other countries in Latin America that saw military regimes implement repressive forms of rule and atrocities against its own citizens.

Even though Ecuador had the good fortune of a relatively peaceful political past, economic or political stability did not automatically follow. Economic instability was mainly a function of overreliance on certain commodity exports combined with a lack of investment into other areas of its economy. Given the cyclical nature of commodities, there were periods of great revenue, but once the commodity du jour began its inevitable price decline political unrest would begin to grow. Swings in the economic prosperity of Ecuador had a corresponding effect on the political sphere. It is not a stretch to characterize the relationship between the economic and political stability, or instability, as an inverse relationship. With an increase in economic exports and economic growth, there was a corresponding decrease in political unrest and infighting. The opposite was true as well; as the commodity booms began slowing and economic growth decreased, the amount of political instability increased. This common theme of a commodity driven

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<sup>53</sup> David W. Schodt, *Ecuador: An Andean Enigma* (Boulder, CO: Westview Press, 1987), 3.

<sup>54</sup> *Ibid.*, 13.

<sup>55</sup> Anita Isaacs, *Military Rule and Transition in Ecuador, 1972–92* (Pittsburgh, PA: University of Pittsburgh Press, 1993), 1–4.

economy, reliant on world prices, that in turn plays a role in the political domain can be traced from the 1600s to the current day.

The first incidence of the commodity boom-bust cycle for Ecuador occurred in the 1600s. Its first foray into this economic model began with textiles. Colonial Ecuador went from six textile mills in 1595 to over 200 by the end of the 1600s. As can happen with virtually any commodity, worldwide competition increased, demand decreased, and prices decreased. This caused a reduction in textile mills in Colonial Ecuador. By 1720 only 60 mills were left from the once booming industry.<sup>56</sup>

The next big boom for Ecuador—the cacao boom—occurred well after its 1820 independence from Spain. Cacao was exported from Ecuador since its colonial days. A rapid rise in demand for cacao from the late 1800s into the early 1900s coupled with the ease of production in coastal areas of Ecuador helped propel the country to its status as the world’s foremost cacao producer. Ecuador did not worry much about competition or substitutes since its costs of production were low and most of the plantations were located in the coastal plains near the ports in Guayaquil, which kept transportation costs low. As a result, Ecuador began to rely heavily on its cacao exports. Schodt explains that “from 1885 to 1922, cacao represented between 65 and 70% of the value of all exports.”<sup>57</sup> Not only was there an overreliance on one commodity, but the windfall profits from the boom were not invested into national infrastructure, with the exception of some upgrades to the ports in Guayaquil. Most of the profits were used for politically expedient social spending. While this garnered good will with the Ecuadorian people, it was unsustainable once the cacao boom was over. The politicians still tried to maintain spending levels which only increased public debt and inflation. Ultimately, the bad economy and political unrest led to a military coup. Military control lasted less than a year, but the political unrest would continue until the next commodity boom cycle.<sup>58</sup>

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<sup>56</sup> Schodt, *Ecuador: An Andean Enigma*, 24.

<sup>57</sup> *Ibid.*, 36.

<sup>58</sup> Carlos Larrea and Liisa L. North, “Adjustment Policy Impacts on Truncated Development and Democratisation,” *Third World Quarterly*, 18, no. 5 (December 1997): 915–916.



Ecuador's third boom cycle started around the end of World War II. Just as with cacao, a worldwide spike in demand—this time for bananas—launched Ecuador into the banana export business. Its geographic features helped to make it an ideal place to grow bananas. Some of these features were there was a substantial amount of land with great soil quality ready to be converted to banana plantations, the climate was ideal, plant disease in the area was minimal, and the area was largely protected from tropical storms experienced in other areas of Latin America. As a result of these comparative advantages, Ecuador quickly became the world's largest supplier of bananas. In the early 1960s, banana exports accounted for over 60% of all export revenue for Ecuador and almost 30% of total world value.<sup>59</sup>

Along with this increase in government revenue came an increase in government spending. This time, though, Ecuador spent more money on infrastructure than it had during the cacao boom. It invested in building an extensive road system throughout the country to speed banana transportation. Overall, the prosperity from the boom brought about political stability in stark contrast to the preceding years. From 1925 to 1948—roughly the time between the cacao boom and the banana boom—27 successive governments tried to govern Ecuador. Presidents spent an average of a mere ten months in office. Political instability and turnover was the norm. With the banana boom, however, a string of three presidents all served their four-year terms. Unfortunately, as the boom cycle came to a close, economic growth once again decreased and political unrest increased.<sup>60</sup>

The political unrest culminated in a military coup in July 1963.<sup>61</sup> The military junta, eager to stabilize the economy and the country, implemented many changes based on President Kennedy's Alliance for Progress model. This model was a financial aid program aimed at bolstering democracy throughout Latin America through various

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<sup>59</sup> James J. Parsons, "Bananas in Ecuador: A New Chapter in the History of Tropical Agriculture," *Economic Geography*, 33, no. 3 (July 1957): 201–216; Simon Cueva, Vicente Alborno, and Leopoldo Avellan, "Ecuador: Binding Constraints to Growth," *Inter-American Development Bank*, (September 2007): 10, [http://www.iadb.org/res/files/GDM/September/ECU\\_GDM.pdf](http://www.iadb.org/res/files/GDM/September/ECU_GDM.pdf).

<sup>60</sup> Parsons, "Bananas in Ecuador," 201–216.

<sup>61</sup> Schodt, *Ecuador: An Andean Enigma*, 82.

economic and social reforms.<sup>62</sup> Some of the economic initiatives included land reforms, tax reforms, and fiscal and monetary policy adjustments.<sup>63</sup> Although potentially able to help the economy in the long term, the policies did not sit well with the economic elites. Eventually, the elites' dislike of the junta's policies compelled them to take measures to undermine the junta's legitimacy. The efforts of the elites combined with the still weak economy proved too much for the junta and they stepped aside in March of 1966.<sup>64</sup>

Civilian government was back in control just in time for the next boom cycle. This time the boom stemmed from petroleum. Significant oil reserves were found in 1967 in the jungle regions of Ecuador. By 1973, Ecuador was exporting 195,000 barrels of oil per day. While the oil discovery was a blessing for the floundering Ecuadorian economy, it would also prove to be a long term curse due to the reliance on world oil prices and the need to continually maintain, or increase, export levels.<sup>65</sup>

While oil production was still coming online, the economy was weak. As at other times, the weak economy caused political unrest. The unrest culminated in another military coup in 1972. A military junta was established and controlled the country until 1979. During the junta's time in power, they tried to implement various economic and social reforms. An over-reliance on oil revenues, however, plagued any chance of successful long term reforms. Almost from the beginning of the oil boom, Ecuador set its sights on nationalizing the oil industry. Through various laws it was successful. Therefore, any petroleum earnings were dedicated to the public sector. A pattern began where the government would use the oil revenues during boom years to increase the size and spending of the government, and in down years it borrowed money to make up any budgetary shortfall. Not all government spending was bad. Some was spent on improving roads and other infrastructure throughout Ecuador, though most was spent on programs to

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<sup>62</sup> "Alliance for Progress (Alianza para el Progreso)," John F. Kennedy Presidential Library and Museum, accessed March 9, 2016, <http://www.jfklibrary.org/JFK/JFK-in-History/Alliance-for-Progress.aspx>.

<sup>63</sup> John F. Kennedy, "Address on the first Anniversary of the Alliance for Progress.," (speech, The White House in Washington, DC, March 13, 1962), <http://www.presidency.ucsb.edu/ws/?pid=9100>.

<sup>64</sup> Isaacs, *Military Rule and Transition in Ecuador*, 3.

<sup>65</sup> Schodt, *Ecuador: An Andean Enigma*, 105.

satisfy various political demands. The problem was when oil prices declined and the government would not cut spending or raise taxes to meet budgetary requirements.<sup>66</sup>

As Ecuador transitioned back to a civilian led government in 1979, the economic condition of the country was not good to say the least. Debt was high; between 1976 and 1979 debt increased four and a half times. By 1980, struggling oil production and an increase in domestic demand for oil reduced the total oil exports to just over half of what it had been in 1973. To make matters worse oil prices began to decline. Furthermore, natural disasters played a role in straining economic output throughout the 1980s. All of these things together caught Ecuador in an almost perpetual cycle of austerity measures, inflation, devaluations, and political unrest.<sup>67</sup>

Each administration through the 1980s experienced hard financial times. The Hurtado administration (1981–1984) faced problems created by drought and flooding that translated into balance of payment losses. Inflation rose to 52.5% in 1983. Hurtado undertook various austerity measures including eliminating government subsidies for food. He also devalued the sucre twice. These actions hurt the poorer citizens as they saw real purchasing power decrease. His policies did keep Ecuador in good standing with the international financial community, however, which proved to be important for debt restructuring negotiations.<sup>68</sup>

The next administration—Febres Cordero (1984–1988)—experienced similar economic woes. From 1985 until the end of 1986, Ecuador only paid the interest on its external debt. Additionally, Ecuador’s overall economic performance was heavily dependent on world oil prices. That dependency translated in a boom year in 1985, but then a bust year immediately followed in 1986. The next catastrophic blow to the economy was an earthquake in March 1987 that destroyed 40 kilometers of oil pipeline. The pipeline was unserviceable for almost 6 months, which contributed to a negative

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<sup>66</sup> Isaacs, *Military Rule and Transition in Ecuador*, 5–6; Schodt, *Ecuador: An Andean Enigma*, 104–112.

<sup>67</sup> Schodt, *Ecuador: An Andean Enigma*, 112, 136.

<sup>68</sup> James D. Rudolph, “Historical Setting,” in *Ecuador: A Country Study*, 3rd ed., ed. Dennis M. Hanratty (Washington, DC: Library of Congress, 1991), 48.

5.2% GDP growth that year. By the end of his presidency, the best Febres Cordero hoped to do was re-negotiate foreign debt and encourage foreign investment. In the end, the administration relaxed some of the economic policies and saw government spending increase once again. Over his time in office the sucre devalued from a 54 sucres to 1 dollar exchange rate to 550 sucres to 1 dollar.<sup>69</sup>

The subsequent president—Rodrigo Borja (1988–1992)—came in with a plan to help the economy, but he too wavered between strict policies and increased spending. At the core, his plans attempted to grow GDP, reduce the government’s deficit, and devalue the sucre to reduce imports. By 1989 the sucre reached an exchange rate of 648 sucres to 1 dollar. Like his predecessors, his reforms were highly sensitive to external oil prices due to the reliance on oil exports. Borja’s last year in office inflation rose almost 55%.<sup>70</sup>

## **B. DOLLARIZATION**

All through the 1990s, financial instability was the norm. A significant portion of this instability was rooted in the overreliance of oil exports as a source of revenue. In addition, inflation was a problem all through the 1990s. The Borja and Ballen administrations tried to implement various economic reforms to help the economy. By the second half to the 1990s, however, adjustment fatigue among the Ecuadorians was setting in. Other contributors to later instability were the Central Bank adopting a modified flexible exchange rate regime in 1992 and a 1994 law to deregulate and liberalize the financial system. The 1994 law allowed banks to reduce reserve requirement to 10% for domestic and foreign currency, and the law made the Central Bank the lender of last resort for large institutions and small depositors. With the Central Bank as the lender of last resort, banks undertook bad banking practices that they probably would not have otherwise. Additionally, the liberalization brought about a credit boom which only further indebted Ecuador’s government.<sup>71</sup>

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<sup>69</sup> Edmundo Flores and Tim Merrill, “The Economy,” in *Ecuador: A Country Study*, 3rd ed., ed. Dennis M. Hanratty (Washington, DC: Library of Congress, 1991), 109–110, 115–116.

<sup>70</sup> *Ibid.*, 116–117.

<sup>71</sup> Luis I. Jacome, “The Late 1990s Financial Crisis in Ecuador: Institutional Weaknesses, Fiscal Rigidities, and Financial Dollarization at Work,” IMF Working Paper WP/04/12, International Monetary Fund (January 2004): 6–15. <https://www.imf.org/external/pubs/ft/wp/2004/wp0412.pdf>.

The first of a string of problems came in 1995. Ecuador and Peru engaged in a small border war. Although it did not last long, there was enough unrest to spark capital flight in Ecuador. During this time the Central Bank chose to hold the exchange rate stable, which in turn caused a shortage of cash. Liquidity became a problem and one private bank had to be absorbed by the Central Bank. The failure of this private bank was a foreshadowing of what was to come.<sup>72</sup>

Dollarization fully came about as a result of a financial crisis in 1998. Beginning in 1997 and continuing through 1998, various external shocks, such as flooding from El Nino and the Russian and Brazilian financial crises, brought about financial stress in Ecuador. In addition, oil prices also declined. All of this together caused the beginning of the banking crisis. The first bank to close was a small bank, but the effect it had was large. Panic started to creep in and runs on the banks began. This caused banks to run low on cash and ultimately either close permanently or secure money from the Central Bank to stay afloat. This in turn caused more worry and more runs on the banks. Finally, in March 1999, the government imposed a freeze on bank deposits. This only served to further worry the citizens and encourage them to move out of the sucre as soon as possible. Once the freeze was lifted slightly, the runs on the banks continued. Then in September 1999, Ecuador defaulted on its external debt. All the while inflation soared and people were scrambling for dollars to protect themselves against inflation.<sup>73</sup>

As a seemingly last ditch effort to help the floundering economy, in January 2000, President Mahuad announced that Ecuador would officially dollarize its economy. Only a week later he was removed from office, but Ecuador continued with the dollarization plan.<sup>74</sup> Ecuador achieved full dollarization of its economy by September 2000.<sup>75</sup> What has transpired since the decision to dollarize? Has dollarization helped the Ecuadorian economy? How have they fared compared with their neighbors? As in the El Salvador

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<sup>72</sup> Jacome, "The Late 1990s Financial Crisis in Ecuador," 16.

<sup>73</sup> Ibid., 16–24.

<sup>74</sup> Roberto Chang, "Dollarization: A Scorecard," 1.

<sup>75</sup> Quispe-Agnoli and Whisler, "Official Dollarization and the Banking System in Ecuador and El Salvador," 59.

case study, a comparison between Ecuador and its neighbors is appropriate because they are all considered Andean states; they all share a similar language and colonial heritage; they all have low population densities; and they all have similar levels of manufacturing as a percentage of GDP.<sup>76</sup> A look at the data provides more insight and suggests that dollarization has been a beneficial decision for Ecuador.

### **C. DATA ANALYSIS**

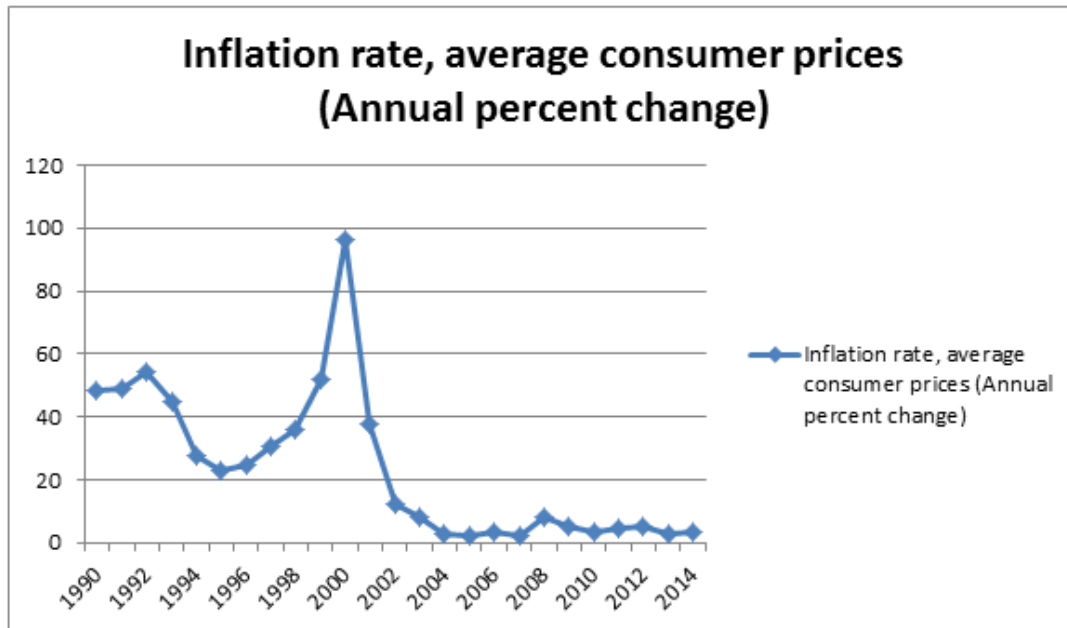
Similar to the analysis on El Salvador, this analysis begins with a look at the inflation rate in Ecuador. As previously stated, the inflation rate through the 1990s—and through the 1980s too—was high. Figure 11 shows how inflation started at just over 48% in 1990 and increased slightly until a peak at almost 55% in 1992. Inflation then began a downward trend as the previously discussed financial liberalization laws came into effect. This trend continued until 1995, which was the beginning of what would become the full blown financial crisis of 1999. Inflation peaked in 2000 at 96% and then a massive downward trend coincided with the decision to dollarize the Ecuadorian economy. It is clear that inflation dropped off dramatically and has stayed relatively low since 2000. In fact, the average inflation rate from 2000–2014 was 13.2%. Furthermore, the average rate since 2002 has been 5%.<sup>77</sup>

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<sup>76</sup> “Interactive Rankings,” Global Edge: Your Source for Global Business Knowledge, Michigan State University Broad College of Business, accessed March 9, 2016, <http://globaledge.msu.edu/tools-and-data/interactive-rankings>; World Trade Organization, “Trade Profiles 2015,” September 18, 2015, [https://www.wto.org/english/res\\_e/publications\\_e/trade\\_profiles15\\_e.htm](https://www.wto.org/english/res_e/publications_e/trade_profiles15_e.htm).

<sup>77</sup> “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

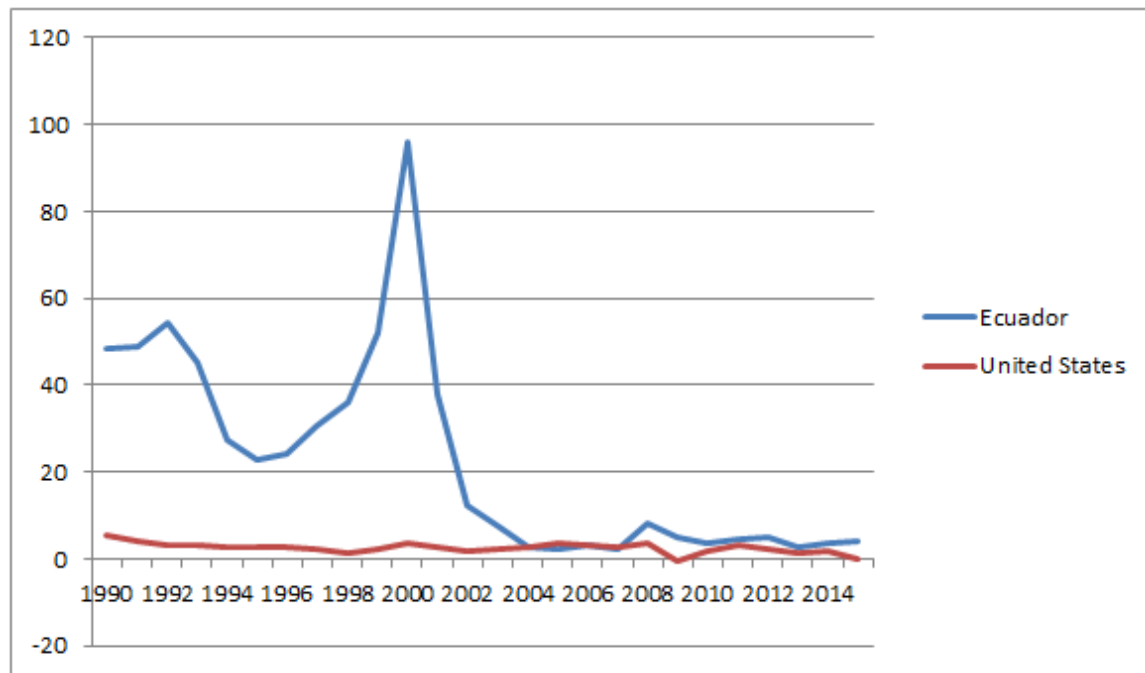
Figure 11. Inflation Rate, 1990–2014



Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

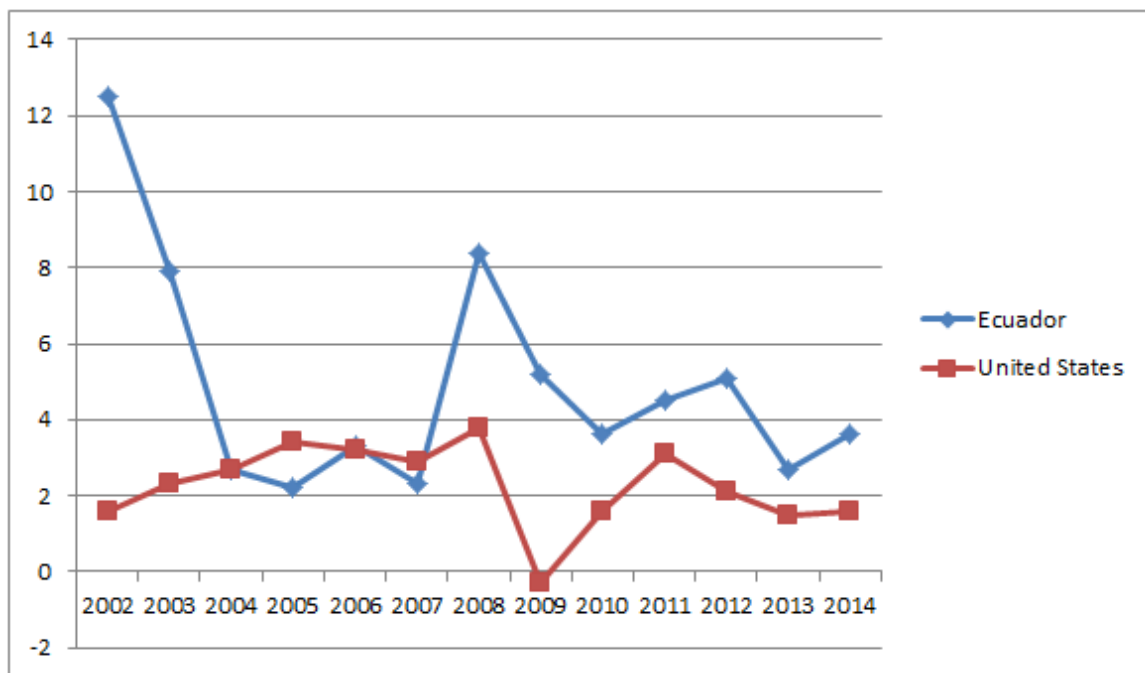
Figure 12 shows the inflation rates from 1990–2014 for Ecuador and the United States. Due to the scale needed for Ecuador, the United States’ inflation rate almost appears to be a straight line. Because of this, Figure 13 graphs the same values but only shows the years from 2002–2014.

Figure 12. Inflation Rate, 1990–2014



Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Figure 13. Inflation Rate, 2002–2014

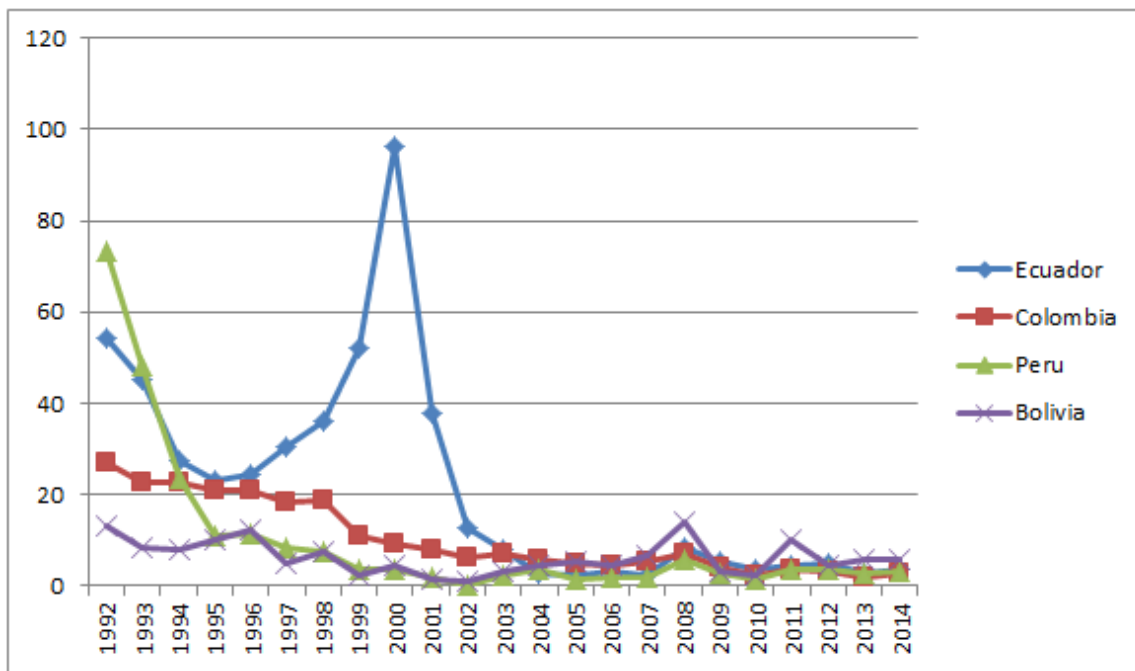


Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.



Figure 13 provides a better visual comparison between the inflation rates of Ecuador and the United States. Ideally, Ecuador's inflation rate should fall close to and mirror the U.S. rates. The chart shows that Ecuador's inflation falls and begins to trend with the U.S. rates. The average rate in the U.S. during the time period in Figure 13 was 2.3%. As previously stated, the average over the same time for Ecuador was 5%. This particular data set bolsters the position that Ecuador's decision to dollarize was prudent. There was a drastic reduction in inflation and Ecuador's rates have, for the most part, followed the U.S. rates, albeit at slightly higher rates.<sup>78</sup>

Figure 14. Inflation Rate, 1992–2014



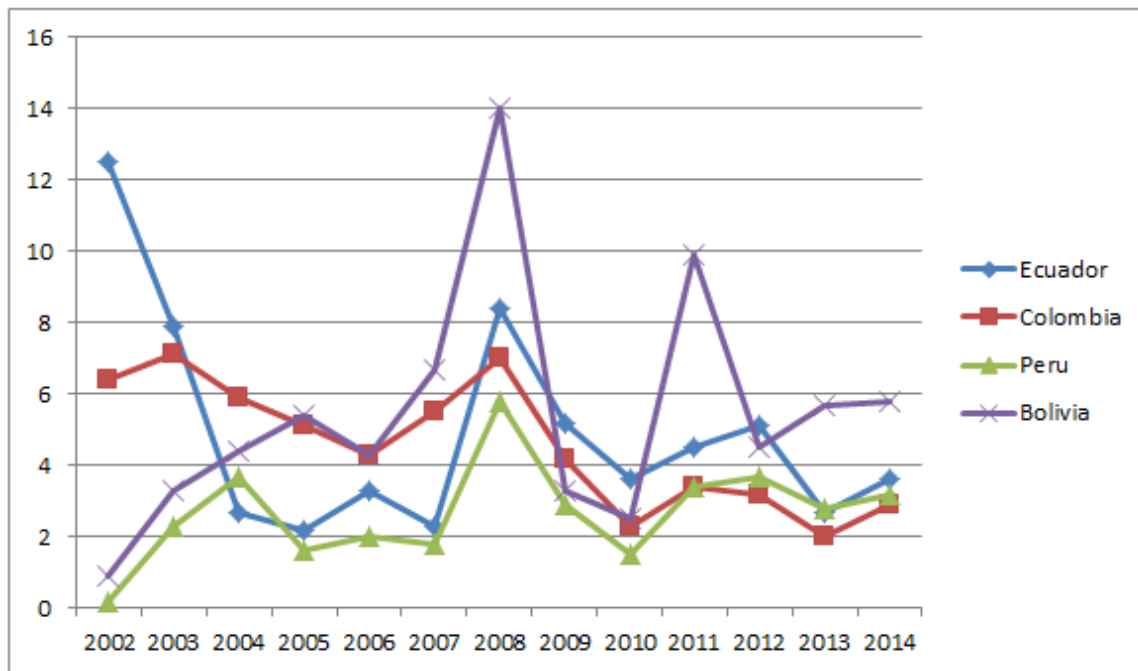
Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Figure 14 graphs the inflation rates of Ecuador, Colombia, Peru, and Bolivia from 1992–2014. Although Peru and Colombia both had high inflation through the 1990s, prior to 2001 Ecuador clearly had the highest rates. All four countries began a decline in

<sup>78</sup> “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

inflation rates at various times, and after 2002 they all enjoyed similar trends. Figure 15 shows the four countries' inflation rates from 2002–2014.

Figure 15. Inflation Rate, 2002–2014

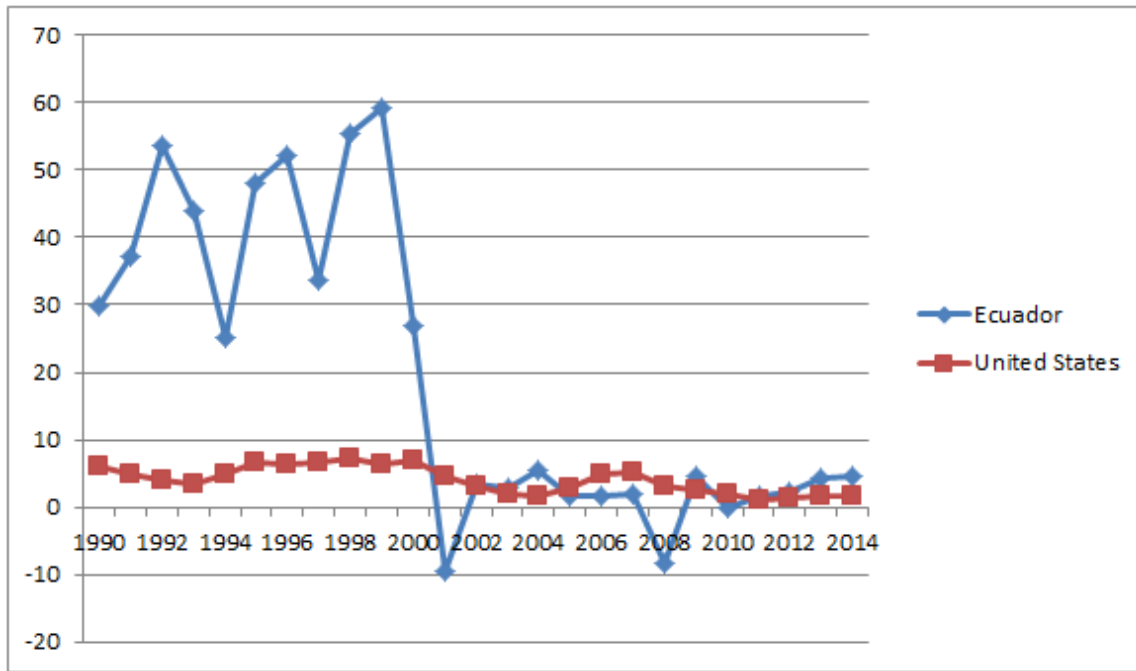


Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Figure 15 shows that Bolivia had the most volatile inflation rate, but the average over that time was only 5.4%. Ecuador’s average was 5% compared to Colombia at 4.6%, and Peru at 2.7%.<sup>79</sup> While this comparison shows that Ecuador did not outperform its neighbors with regard to inflation rates, it does show that they maintained a similar inflation rate. The decision to dollarize is not undermined by Figure 15’s data. On the contrary, when Figures 14 and 15 are viewed together it shows that Ecuador was clearly going the wrong direction at a very fast rate, but once dollarization happened it began moving in the right direction again.

<sup>79</sup> “IMF Data Mapper,” International Monetary Fund, accessed January 14, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

Figure 16. Interest Rates, 1990–2014



Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/united-states>. “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

Figure 16 graphs the interest rates in Ecuador and the United States from 1990–2014. Through the 1990s, Ecuador’s interest rates were high and fluctuated rather wildly. In fact, the average interest rate between 1990 and 2000 was 42%.<sup>80</sup> The average percentage change year to year over that same time was 15.5%.<sup>81</sup> In contrast, the U.S.’s average interest rate from 1990–2000 was 5.75%.<sup>82</sup> Again, due to the scale needed for

<sup>80</sup> “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/united-states>. “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

Figure 16, it is difficult to see what happened after dollarization. Figure 17 shows both countries' interest rates from 2001–2014.

Figure 17. Interest Rates, 2001–2014



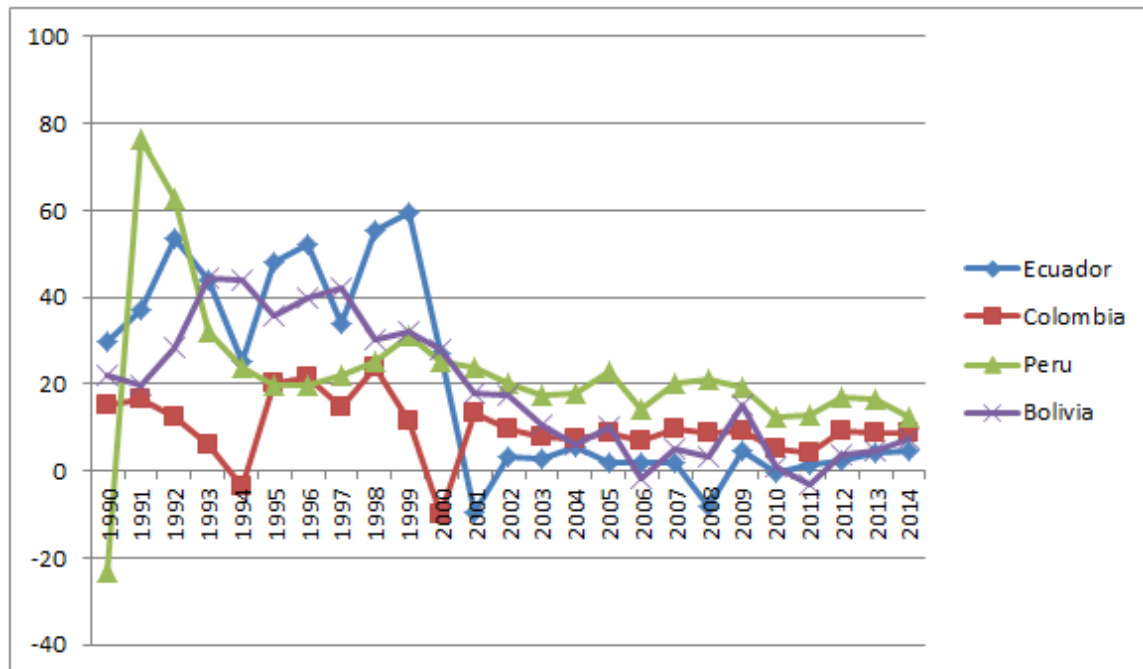
Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/united-states>. “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

Interestingly, Figure 17 shows that Ecuador has still had some volatility in its interest rates post-dollarization. The average rate, however, for Ecuador from 2001–2014 was 1.2%, while the U.S. average over the same time was 2.7%.<sup>83</sup> Ecuador's post-dollarization average sharply contrasts with its rates prior to dollarization. Furthermore,

<sup>83</sup> “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/united-states>. “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

after dollarization a significant correction in interest rates is evident. The data evidence shows the expected effect of aligning Ecuadorian interest rates with U.S. rates. This furthers the idea that the dollarization policy benefitted Ecuador's macroeconomic situation.

Figure 18. Interest Rates, 1990–2014

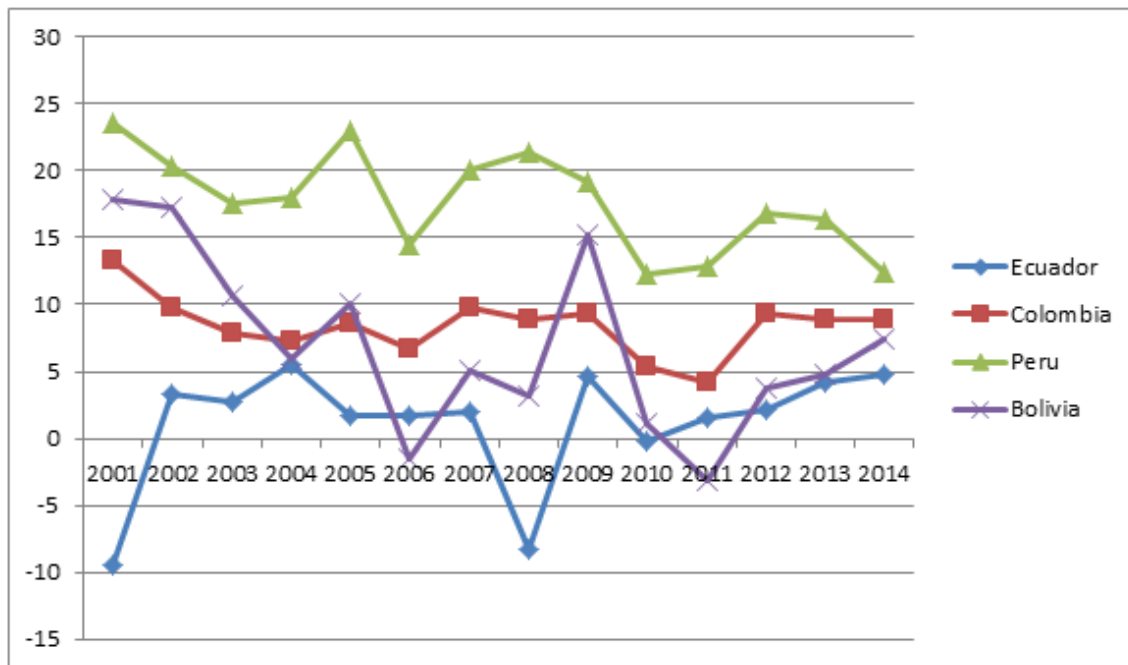


Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>; “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

Figure 18 graphs a comparison in interest rates between Ecuador and its three closest neighbors. Prior to 2001, three of the four countries had high and fluctuating interest rates. Nevertheless, Ecuador had the highest average rates of the four countries. As mentioned, from 1990–2000, Ecuador's interest rate average was 42%; Peru, Bolivia,

and Colombia's respective averages were 28.5, 33, and 12%.<sup>84</sup> Since the post-dollarization interest rate trends are difficult to see in Figure 18, Figure 19 graphs the interest rates from 2001–2014.

Figure 19. Interest Rates, 2001–2014



Adapted from “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>; “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

<sup>84</sup> “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>; “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

In contrast to the years prior to dollarization, Ecuador's interest rates were much lower than the other three countries. The only country that had lower interest rates than Ecuador from 2001–2014 was Bolivia in 2006 and 2011, though Bolivia's average over this time was 7%.<sup>85</sup> Ecuador averaged 1.2% for this time frame, and Colombia and Peru averaged 8.4 and 17.7% respectively.<sup>86</sup> Recall that prior to dollarization the average year-to-year change in Ecuadorian interest rates was 15.5%. After dollarization, the average year-to-year change in interest rates fell to just over 4%.<sup>87</sup> The rapid difference in interest rates in Ecuador from the 1990s to after 2000 can be attributed to dollarization. Therefore, more evidence shows that Ecuador made a sound decision to dollarize.

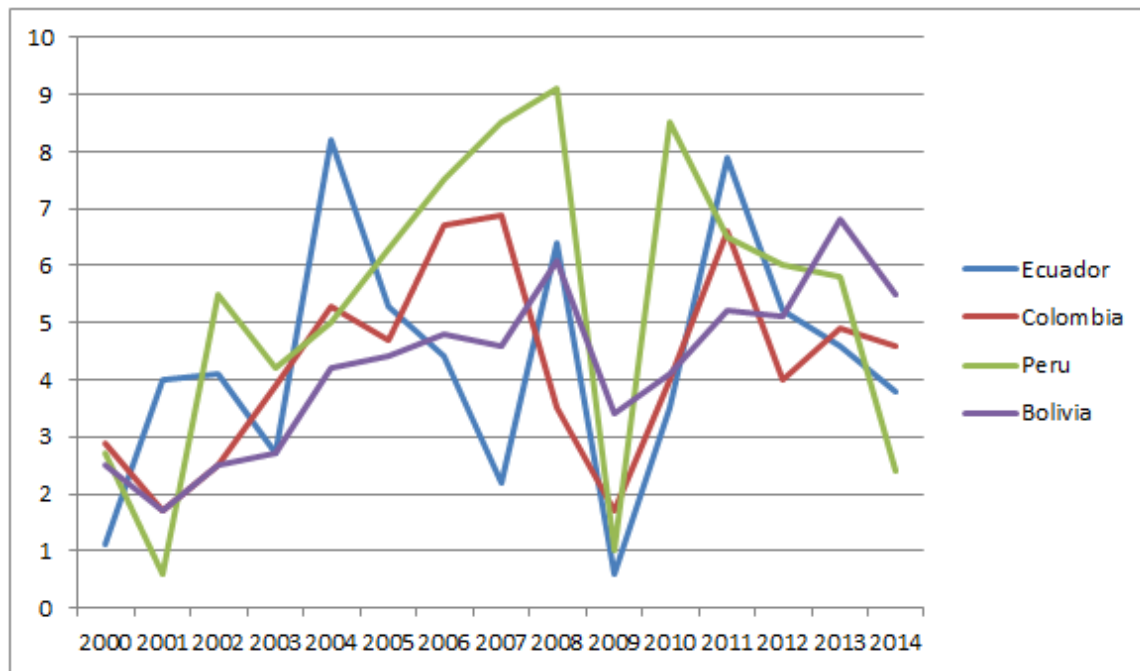
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<sup>85</sup>“World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>.

<sup>86</sup> “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

<sup>87</sup> “World Development Indicators: Real Interest Rates (Percentage),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “Tasas de Interes Referenciales Para Prestamos Externos del Sector Privado,” Banco Central del Ecuador, accessed January 20, 2016, <http://www.bce.fin.ec/index.php/component/k2/item/268-tasas-de-interes-referenciales-para-prestamos-externos-del-sector-privado>.

Figure 20. GDP Growth (Annual Percentage)



Adapted from “IMF Data Mapper,” International Monetary Fund, accessed January 19, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

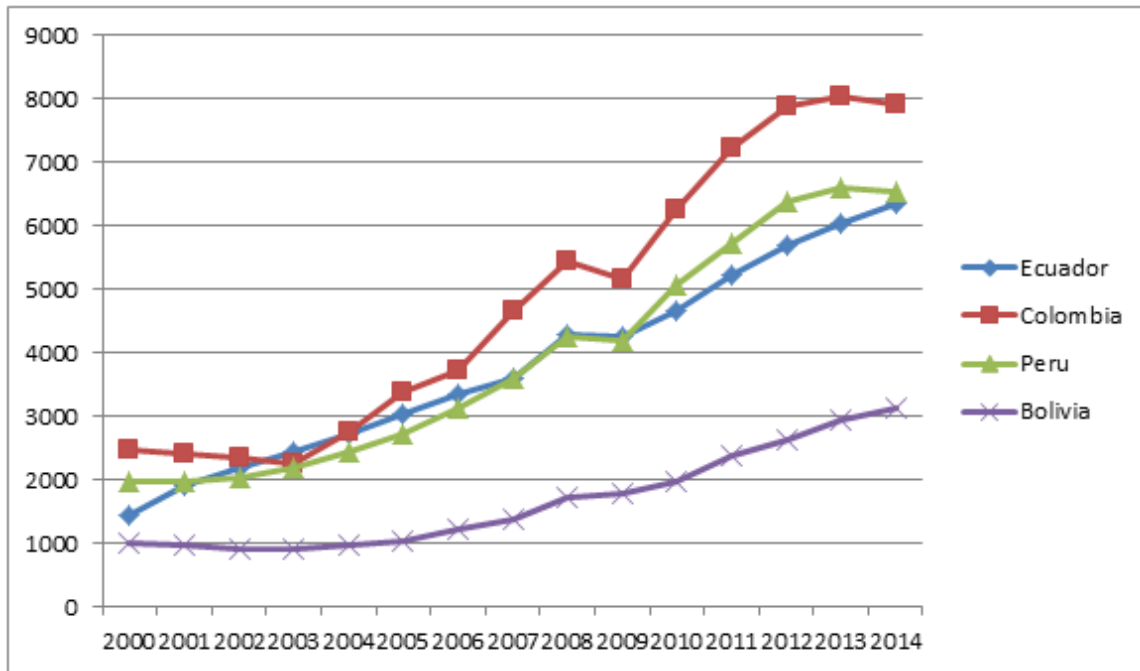
Figure 20 graphs annual GDP growth of Ecuador and three of its Andean region neighbors. In 2000, Ecuador logged 1.1% GDP growth. That was by far the lowest out of the four countries. After dollarization effects started kicking in, though, GDP growth started to increase. Admittedly, Ecuador has had bigger year-to-year swings than the other countries; however, 20% of the time covered in the graph, Ecuador had the highest annual GDP growth out of the four. Furthermore, Ecuador has managed to keep pace with its neighbors’ growth since it has dollarized. Three out of the four countries have averaged almost identical growth numbers from 2000–2014: Ecuador, Colombia, and Bolivia averaged 4.3, 4.3, and 4.25% respectively.<sup>88</sup> Peru’s average was slightly higher at 5.3%.<sup>89</sup> Therefore, while dollarization may not have given Ecuador significantly better GDP growth than its neighbors, dollarization certainly has not caused it to lag behind them either. It has performed just as well since it switched to the dollar.

<sup>88</sup> “IMF Data Mapper,” International Monetary Fund, accessed January 19, 2016, <http://www.imf.org/external/datamapper/index.php?db=FM>.

<sup>89</sup> Ibid.



Figure 21. GDP Per Capita (Current U.S.\$)



Adapted from “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: GDP Per Capita (Current U.S.\$),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>.

Figure 21 examines the GDP per capita for the same four countries as Figure 20. A positive sign for the Andean region is that since 2000 GDP per capita has been trending upward. Similar to the GDP growth discussion, Ecuador’s GDP per capita has not out performed Colombia or Peru, but it has not done any worse either. The Colombia, Peru, and Ecuador lines in Figure 21 all appear to have a similar slope. This figure is not so much a proof that dollarization will increase GDP per capita for any country that dollarizes, but it does show that dollarization has helped contribute to an increase in GDP per capita for Ecuador.

Figure 22. Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population)

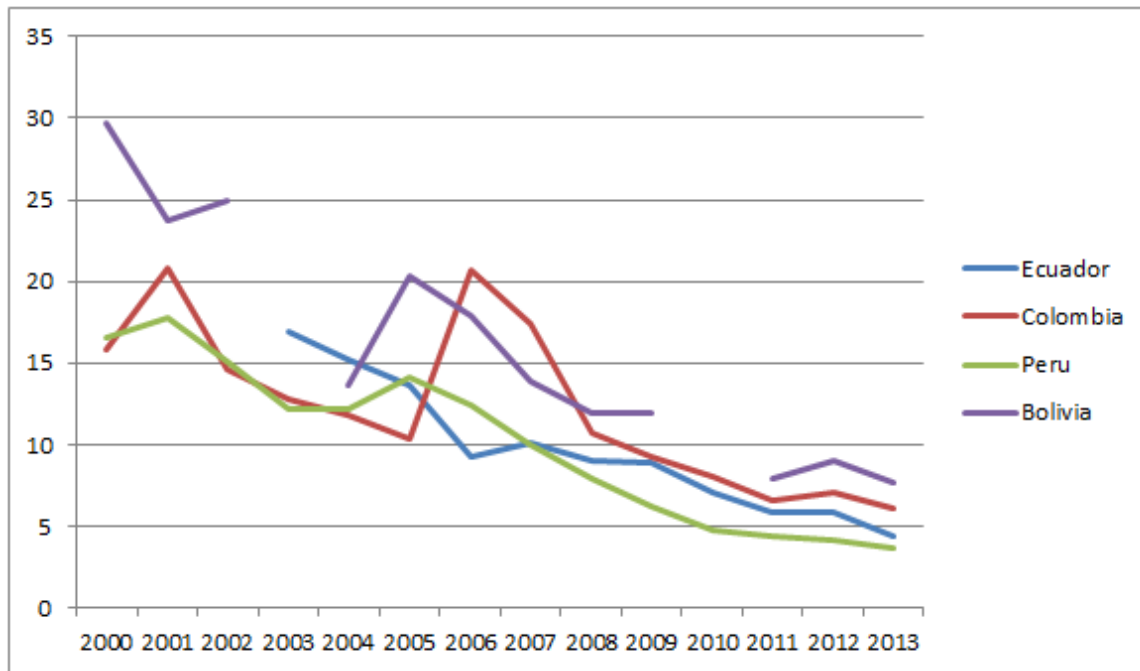


Adapted from “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>.

GDP numbers are fine to look at as macroeconomic factors, but do those numbers actually show that the population as a whole is doing better, or is it just a group of wealthy people getting even wealthier? One way to check this is through poverty ratios. Figure 22 shows the poverty headcount ratio at \$3.10 per day for Ecuador, Colombia, Peru, and Bolivia. A great sign for all four countries is that poverty levels are decreasing. The figure shows that Peru is leading the way percentage wise, but since it has a larger population than Ecuador and Bolivia the actual amount of people still in poverty is close to three million compared to only 1.8 million in Ecuador and just under 1.4 million in

Bolivia.<sup>90</sup> Since 2000, Ecuador has gotten 4.2 million above this poverty threshold. While dollarization cannot be credited as the sole cause of that number, it has been an integral part of Ecuador's improved economy.

Figure 23. Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population)

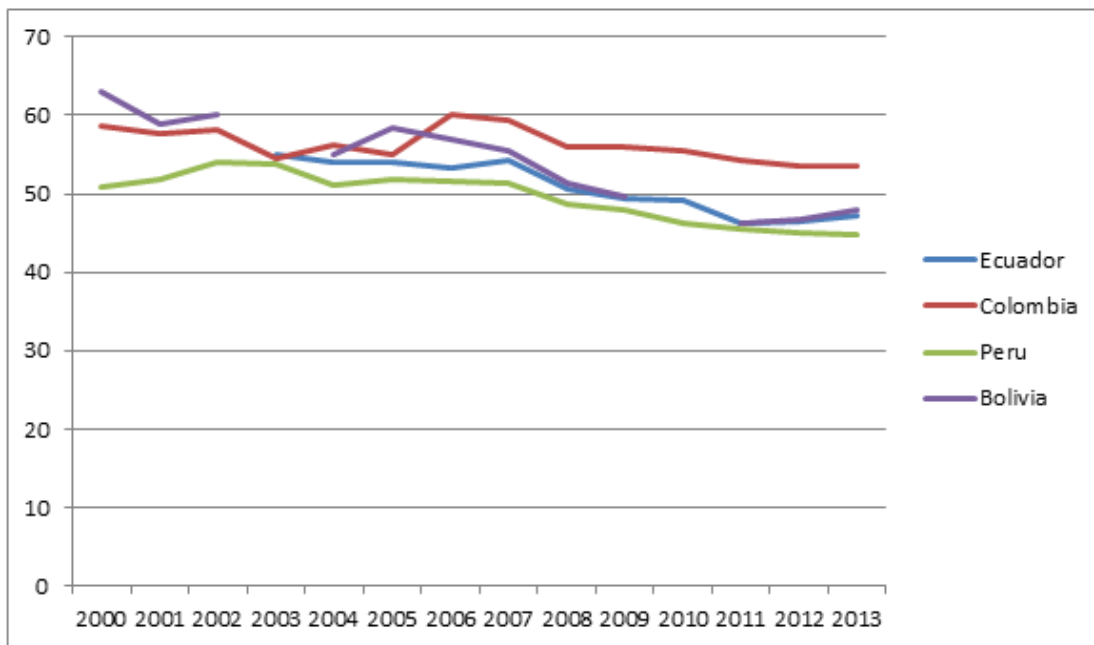


Adapted from “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Poverty Headcount Ratio at \$1.90 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>.

<sup>90</sup> “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Poverty Headcount Ratio at \$3.10 a Day (Percentage of Population),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>.

Similar to Figure 22, Figure 23 shows a poverty headcount ratio as a percentage of the population. This chart uses \$1.90 as the cutoff instead of \$3.10. Figure 23 is just as encouraging as Figure 22 because the amount of people living on less than \$1.90 a day in all four countries is declining. Again, Peru is leading percentage wise, but not in overall numbers. The country with the least amount of people living on less than \$1.90 a day is Ecuador. This fact gives evidence that dollarization has contributed to a reduction of poverty in Ecuador—yet another data point showing that dollarization has been a good decision.

Figure 24. Gini Index (World Bank Estimate), Andean Countries



Adapted from “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank, accessed January 14, 2016, <http://data.worldbank.org/country/ecuador>; “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/colombia>; “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/peru>; “World Development Indicators: Gini Index (World Bank Estimate),” The World Bank Group, accessed January 14, 2016, <http://data.worldbank.org/country/bolivia>..

Figure 24 graphically depicts the World Bank estimate of the Gini index for the same four countries. A lower number indicates more equality within the population of that particular country. This data was only available through 2013, but it still shows a

positive trend. Ecuador, Peru, and Bolivia have all gotten slightly more equitable than Colombia over the time period shown; notwithstanding, all have shown a move toward a more economically equal society. Once again, this graphic shows that Ecuador has done no worse than any of its close neighbors in the Andean region. This fact is certainly significant given Ecuador's statistics at the turn of the millennium. This is still another positive sign that dollarization has helped to keep Ecuador going in the right macroeconomic direction.

#### **D. CONCLUSION AND RECOMMENDATIONS**

After a look at the data points above, what can be said about dollarization in Ecuador? First and foremost, it is clear that dollarization has had a positive impact on Ecuador's macro economy. From around 1980 to 2000, Ecuador was on a sea saw economically speaking. A lot of the ups and downs had to do with its reliance on oil, and world oil prices, as a large part of its economy. This reliance resulted in somewhat unpredictable government revenues, which at times caused excess borrowing. Not all borrowing was a result of income shortfalls; plenty of government spending and expansion was pursued for politically expedient purposes rather than taking a more prudent economic approach. Since 2000, however, Ecuador has seen a huge change for the better in inflation and interest rates. The other data points analyzed above also point out that instead of continuing on a path to complete economic collapse, as it was doing, Ecuador has instead competed quite well with its Andean neighbors despite its small size.

Further research could be done to figure out what has caused Ecuador to have larger GDP growth swings as compared to its neighbors. Perhaps this could be attributed to oil, but perhaps there are more issues underlying the trend. Being able to consistently achieve GDP growth year after year is something that Ecuador still needs to learn how to do. Another area that could use more research is in determining how to effectively diversify Ecuadorian exports. Oil is obviously the strongest export that Ecuador has, but finding ways to reinvest better in that market and also expand other markets will be important for long term success. By expanding other markets, oil will be a smaller percentage of the total exports which will help mute the effects of oil price swings on

Ecuador's economy. In sum, even though dollarization was taken essentially as a last ditch effort to save the country from economic collapse, and even though many were skeptical that Ecuador's economy would even be able to handle the switch, the available data from the last 15 years shows that dollarization has a beneficial policy decision for the long term macroeconomic stability of the country.

## IV. CONCLUSION

### A. FUTURE RESEARCH

The focus of this thesis has been on macroeconomic effects of dollarization. As such, it has not discussed other topics that may be useful to understand for a country considering dollarization. One of these topics is, what is the impact of dollarization on particular socioeconomic classes in a country? This thesis has used broad, national level data sets to analyze dollarization effectiveness, but it does not look at individual socioeconomic classes, such as the middle class. The effect of dollarization on the middle class, or some other sector of the population, would be interesting. Just because the country as a whole is performing better economically does not necessarily mean that every person in the country is better off. It would be valuable to understand to what extent dollarization benefits, or hurts, certain groups of society.

Anecdotal evidence has claimed that the poorest classes in El Salvador suffered the worst in the switch to the dollar.<sup>91</sup> The argument is that since poorer members of society have less education and math skills, they were less likely to properly convert colones to dollars. The exchange rate at the time of the switch was 8.75 colones to 1 dollar. With calculators not widely available and no conversion chart or table provided by the Salvadoran government, small business owners and individual citizens had to muddle through the conversion in their heads or on paper. To make the conversion math easier, merchants would just round up to the nearest whole number.<sup>92</sup>

For example, a shopper on the day before dollarization buys 10 items at the store that each cost 8.75 colones. The total bill would be 87.50 colones. The very next day the store owner changes the prices to dollars, but uses a 9-to-1 conversion rate for simplicity's sake. If the same shopper came in after dollarization looking for the same 10

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<sup>91</sup> "Ten Years Later: The Impact of Dollarization in El Salvador," Voices on the Border: Information and Analysis from El Salvador, Posted June 8, 2011, <https://voiceselsalvador.wordpress.com/2011/06/08/ten-years-later-the-impact-of-dollarization-in-el-salvador/>.

<sup>92</sup> Marla Dickerson, "In El Salvador, the Dollar Is No Panacea," *LA Times*, August 4, 2007, <http://articles.latimes.com/2007/aug/04/business/fi-dollarize4>.

items it would cost \$10 U.S., but the colón price would be 90 colónes (10x9). Due to the owner's rounding, the cost of these 10 items increased by 2.50 colónes overnight. This is a form of inflation. All of the sudden the same citizen must spend more for every item purchased than before, all while earning the same income. When this sort of conversion is multiplied over many transactions, it is clear that the citizen will have less disposable income than before dollarization. In real terms, the citizen has less purchasing power and has effectively gotten poorer.

Therefore, systematic research is needed to verify the extent of this instant inflation. Does it occur on a large scale or is it only a few isolated cases that are characterized as widespread occurrences? If this sort of rounding is commonplace, what can be done to mitigate it before a country adopts the dollar? Additionally, if rounding is happening extensively, how long will the diminished purchasing power effects linger? Along with that, how long does it take for wages to catch up to the new prices, if they ever do? Answers to these questions could help in smoothing the transition from a national currency to another currency, and could help various income groups to maintain their standard of living despite the change.

Another potential area of research is, to what extent has the strength or weakness of the dollar affected dollarized countries? The general rule is that when a country's currency is weak vis-à-vis other currencies its exports compete better in the world market because of their lower prices. Conversely, as the currency gains strength compared to other currencies, exports decline and imports increase due to the price differential. A country with its own currency and monetary policy can manipulate its world price to some extent. This manipulation can keep a country competitive in the world market. A dollarized country, however, cannot change the world price of its currency, but, instead, is subject to the world price of the dollar. Therefore, how much does a strong or weak dollar affect a particular dollarized country?

It could be that a dollarized country does the majority of its trading with the United States and as a result would not feel many of the effects of a strong or weak dollar. That raises the question, what percentage of trade with the currency's country of origin is needed for the effects of relative currency strength to be a moot point? In the



case of a dollarized country, if it traded exclusively with the United States, the effects of currency strength or weakness would be as if it were the 51st State. In other words, the effects would largely be transparent to that country. No country, however, trades exclusively with the United States. Therefore, at what level of trade are the effects of currency price changes negligible?

A final area for further research could be dollarization as it relates to a country's particular stage of economic development. There have been various theories of economic development put forth over the years. One of the more popular theories is the Porter Stage Theory. In this theory, Porter describes three distinct stages, and two transition stages in between the three stages, that a country could fall into. These three stages are the factor-driven economy, the investment-driven economy, and the innovation-driven economy. He claims that any economy must start at the first stage and move through the rest of the stages on its way to the final stage in a sequential manner.<sup>93</sup>

Porter's main idea is that a country must try to continuously increase its competitive position on a microeconomic level. In order to do this, a country must develop economically in multiple areas at the same time so that productivity can increase, thus enhancing the overall competitiveness of a country.<sup>94</sup> Since Porter's theory concentrates on productivity and microeconomic factors, macroeconomic factors are only important to the extent that they provide an advantageous business climate for the micro economy to continue developing. In other words, Porter argues that macroeconomic policies are necessary but not sufficient for a country's long term wealth creation. Nevertheless, dollarization could be a macro policy that enhances the business climate and competitiveness of a particular economy. If a country decides it wants to pursue dollarization, at what stage in the Porter model should a country dollarize? What stage were countries in that have dollarized?

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<sup>93</sup> Michael E. Porter, "Enhancing the Microeconomic Foundations of Prosperity: The Current Competitiveness Index," in *World Economic Forum, The Global Competitiveness Report 2001–2002*, eds. Klaus Schwab, Michael E. Porter, and Jeffrey D. Sachs (New York: Oxford University Press, 2002): 57–58, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.4940&rep=rep1&type=pdf>.

<sup>94</sup> Ibid., 55.

According to Porter's stages, the investment-driven stage seems to make the most sense for when a country might want to dollarize. This is because in the investment-driven stage countries want to build a national business environment that is efficient and allows heavy investment. The first stage—the factor-driven stage—does not seem like the time to switch currencies. In this stage the economy is still heavily reliant on labor-based jobs such as assembly, manufacturing, and resource extraction. Building a robust banking and financial system that encourages investment is not a focus in the first stage. Similarly, the third stage—the innovation-driven economy—seems as though it would be too late to switch to the dollar because by that stage the economy is already well developed, which suggests that dollarization would not be applicable.<sup>95</sup>

Further research could concentrate on which stage of development is most appropriate for the transition to the dollar. Perhaps the second stage is the best time, but maybe the research would show a different answer. Given that a majority of countries are either in stage one or two, or in a transition stage, it would be valuable to identify which stage is the most advantageous stage to switch currencies.<sup>96</sup> Maybe there is not an optimal stage; maybe a country could switch at any stage and reap benefits. Perhaps the research might show that dollarization has a negligible effect on a country's stage progression; that would be an important finding as well, but diligent study in all of these areas is required for more complete answers.

## **B. SUMMARY**

In the previous two case studies this thesis has examined some of the macroeconomic indicators of El Salvador and Ecuador in order to validate, or invalidate, the hypotheses discussed in the first chapter. Based on the data examined, the first hypothesis—dollarization has been a beneficial policy decision for El Salvador and Ecuador—has been validated. This thesis is not arguing that dollarization was the only reason the economies of both countries have performed well since their decision to

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<sup>95</sup> Porter, "Enhancing the Microeconomic Foundations of Prosperity," 58.

<sup>96</sup> Klaus Schwab, *The Global Competitiveness Report 2014–2015: Full Data Edition* (Geneva, World Economic Forum, 2014), 11, [http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2014-15.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf).

switch to the dollar. Nor is this thesis arguing that dollarization is a panacea. Obviously there are other important internal and external factors in any economy that will have an impact on overall performance. The world economy, and even the regional economy, can have huge impacts on individual economies. Natural disasters can cause shocks to a country's economy. Furthermore, strength of institutions, property rights, and the rule of law all contribute to the business climate of a given country, which translates into economic growth or decline. Additionally, given the substantial trade that El Salvador and Ecuador do with the United States, their economies are intertwined with the U.S. economy and should mirror U.S. economic performance to some extent. Therefore, this thesis is simply arguing that the policy decision to dollarize has been beneficial for both countries.

Interestingly, the two case study countries embarked on dollarization from different starting points, yet both had favorable outcomes. El Salvador had a fixed exchange rate through the 1990s, and the case study data shows that its once high inflation rate was already beginning to trend downward prior to dollarization. This reduction suggests, at least in part, that the economic policies, and other conditions, at the time were beginning to put El Salvador on a healthier economic path. Therefore, to say that the dollarization decision was purely an economic one is hard to prove. It seems as though the decision to dollarize was more of a calculated political decision by the ARENA party in an attempt to benefit party members and its supporters while marginalizing other political parties and their supporters. Regardless of the reason, though, dollarization has contributed to better economic performance for El Salvador vis-à-vis its northern triangle neighbors and in comparison to its own prior performance.

Similarly, Ecuador has benefitted from its controversial decision to dollarize. President Mahuad declared that his country would dollarize amid an atrocious economy that was only getting worse. The decision was not popular and contributed to his forced resignation shortly thereafter; nevertheless, Ecuador has benefitted from the switch to the dollar. Furthermore, many economists theorize that in order for a country to successfully dollarize that certain pre-conditions must be met before a successful transition can be undertaken. Some of these supposed requirements are a strong financial system, public

finances that demonstrate sound policies, and flexible labor markets.<sup>97</sup> The Ecuador case, however, suggests that these ingredients are not necessarily needed for a successful transition to the dollar. Ecuador was in the midst of a banking crisis and dangerously near an economic collapse when it transitioned. That is a far cry from a strong financial system and sound government policies that some say are needed. Instead, Ecuador's dollarization experience gives evidence for the theory that a country should dollarize first and then other positive economic changes will follow necessarily.<sup>98</sup> Should other Latin American countries consider dollarization?

Since the hypothesis is true that El Salvador and Ecuador have benefitted from dollarization, what are the implications for other countries—specifically Latin American countries? The first is that a country does not necessarily have to wait until it has a strong financial system or good immediate economic policies in order to dollarize. Ecuador shows that dollarization can come first. Second, a country need not have a deteriorating economy in order to dollarize. El Salvador shows that a country with a relatively good economy can transition and improve its macroeconomic indicators even more. The third is that dollarization is not a magic bullet that will take a mediocre economy and transform it into a strong economy overnight. Furthermore, a singular policy, such as dollarization, must be combined with other sensible policies to reap the full benefits of switching to the dollar. The El Salvador case shows that dollarization, along with other policies, has contributed to solid economic performance. In fact, it has helped El Salvador outperform its northern triangle neighbors in many respects. Ecuador, alternatively, has continued to pursue loose government spending policies which creates debt, resulting in dampened effects from dollarization. Available data in the Ecuador chapter shows that Ecuador benefitted from the switch to the dollar; however, since the initial correction to bring its economy into line with its Andean neighbors, it has not significantly or consistently outperformed them from a macroeconomic perspective. Therefore, the idea that dollarization can offset the effect of other detrimental economic policies is not true, but dollarization coupled with other sound policies can be a potent recipe for success.

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<sup>97</sup> Jacome, "The Late 1990s Financial Crisis in Ecuador," 8.

<sup>98</sup> *Ibid.*, 8.

In sum, this thesis has demonstrated that El Salvador and Ecuador have benefited from the decision to dollarize. Both countries were in different economic conditions when they dollarized, but both have seen favorable macroeconomic numbers as a result of the change. A reduction and stabilization in inflation in both countries was probably the most significant outcome of dollarization for both. It has been just over 15 years since the two decided to switch; time will tell if dollarization continues to reap benefits for both countries. Without other sound macroeconomic policies—or even microeconomic reforms as Porter would argue—dollarization alone will probably not provide the long term benefits hoped for. A commitment to responsible government spending, however, in areas that provide positive returns on investment and policies that help improve the overall productivity of the national economy should complement dollarization nicely.

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